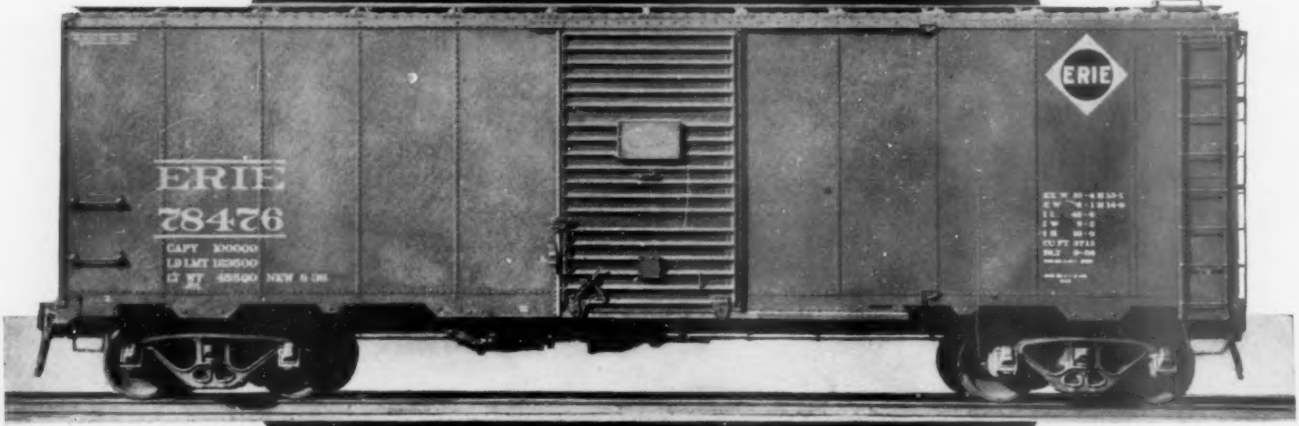
JANUARY 9, 1937

Railway Age

Founded in 1856

KEEPING



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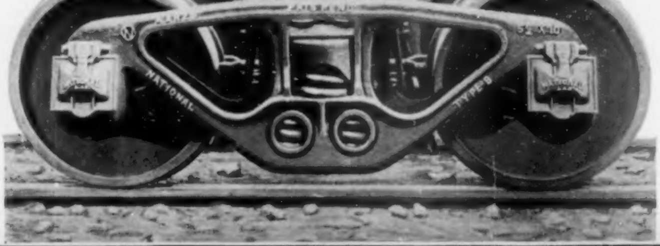

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In This Issue

The Railway Age is indexed by the Industrial Arts Index and also by the Engineering Index Service

The Week at a Glance

CROSSINGS GET 50 MILLION: Of 200 million dollars apportioned by the Secretary of Agriculture for federal subsidies to highway construction, 50 millions have been allotted to grade crossing elimination. A table in the News section shows how much of the money each state will get.

CARLOADINGS: In the week ended December 26 loadings went down to 562,218 cars, which was a big drop, of course, due to Christmas—but it was 20.5 per cent above the preceding year's figure. The total carloadings for the year were 36 million—up 14.5 per cent from 1935. The big percentage increases were in coke, ore, forest products, grain and miscellaneous.

B. B. ADAMS RETIRES: The senior associate editor of *Railway Age* retired January 1 after 50 years of service on this publication, which was preceded by 21 years of service in active railroading. An article herein outlines the remarkable service record of the dean of our staff—which, we suspect, is pretty nearly unique in industrial journalism. Seventy-one years of active work is pretty good, even for a railroader.

11 MONTHS' EARNINGS: Complete figures of earnings for the first 11 months of 1936 were released this week by the Bureau of Railway Economics of the A.A.R. They show net railway operating income for the period at 597 millions, or 2.45 per cent on the property investment, and an increase of 146 millions over the first 11 months of 1935. Gross for the period was 3680 millions—up 16.7 per cent over 1935. Operating expenses were 2674 millions—up 13 per cent. The percentage increase in gross was 17.7 in the West, 16.2 in the East and 15.7 in the South. November's increase in net railway operating income over that month in 1935 was 48 per cent in the South, 42 in the West, 24 in the East and 30 in the Pocahontas region.

PENALTY TAXES: The I. C. C. annual report for 1936, summarized herein, tells of the harm which the penalty tax on earnings not paid to stockholders threatens to financially weak roads. Such roads, the I.C.C. contends, should not be forced by a tax penalty to pay out earnings in dividends. Rather, earnings should be used to improve property and pay off debts, so that these companies may weather future economic storms without disaster.

TIME CHAOS: The Commission also points out that America's time standards are disintegrating with many communities disposed to set their own standards, regardless of their neighbors or the rest of the country. Congress is urged to put an end by law to this anarchy.

CAR SHORTAGE THREAT: The commission reports also a "day-to-day situation" on large box cars in the West and Northwest and "sporadic shortages" of coal car equipment—and suggests measures for relief. It also, apparently, shares with some railroads misgivings as to the perfection of the average per diem plan.

ENFORCEMENT: The Bureau of Motor Carriers is swamped with work—no one will be disposed to deny that statement. Perhaps that condition explains the ratio of enforcement to complaints of violations of the Motor Carrier Act which ratio is 0.001—3 cases turned over to the Department of Justice for prosecution out of 3,000 complaints received.

WAGES BY COERCION: The excessive use by labor, or any other class in the community, of direct or political coercion as a means of increasing its share of the national income, beyond its contribution to that income and at the expense of reduced incomes for other classes, is the entering wedge of fascism—so the leading editorial herein points out. Illegal "sit-down" strikes, make-work legislation and other such tactics of organized labor are a standing invitation to farmers and business men to employ the same methods. *The result of the adoption of such strategy is less likely to be a change in the distribution of income than a reduction in the amount to be distributed.* Claims for changes in income distribution can be peaceably adjusted by honest men in conference—and that is the only way to assure that a *larger share of the national income will also mean a larger income.*

CLEVER TUNNEL WORK: The Chesapeake & Ohio has lowered a tunnel floor to eliminate clearance restrictions—meantime avoiding disturbance to foundations of a brick lining. The difficulties met with and the ingenuity with which they were overcome are described in an illustrated article herein.

S. F. TOURIST DeLUXE: Now comes the Santa Fe with a de luxe exclusively tourist and coach train between Chicago and California. The new train goes into service January 10, and is its "Scout," transformed and with its schedules reduced. Three square meals may be had in the Fred Harvey dining cars for 90 cents. Air-conditioned coaches have chairs, free pillows and porters, and larger dressing rooms. Between Chicago and Kansas City it will have first class as well as tourist Pullmans. On the same date the Santa Fe brings the westbound Chief down to a schedule of 50¾ hr., with 49 hours eastbound.

BRITAIN BANS 6-HOUR DAY: The Railway Staff National Tribunal, according to press dispatches from London, has rejected the demand of the enginemen's union for a 6-hour day and a 36-hour week for engine crews in Britain on the ground of prohibitive cost. The chairman of the tribunal is Sir Arthur Salter, eminent economist.

D. L. ORDERS LOCOS: The Lackawanna this week has ordered five passenger locomotives. Freight car orders reported total 2660 and passenger cars 63. New inquiries for freight cars (including "contemplations") run up to 3530, and for passenger cars to 29. Details in the Equipment and Supplies columns in the News department herein.

LIGHT SLEEPER: Light in weight—but not in sleeping qualities—is the new Pullman sleeping car "Forward," now in test service on the Santa Fe's Superchief and described in an illustrated article elsewhere in this issue. Weight saving by use of alloy steels, new structural features and welding is 40 per cent. Color (enamel) is polychromatic gun metal, with gold and black striping and gold leaf lettering.

PENSION PARLEY: Committees representing the A.A.R and the railway labor executives are going to confer, at the suggestion of President Roosevelt, to see whether or not an amicable agreement may not be reached on the question of railway pensions. The tax law for raising pension funds is still before the Supreme Court and expires February 28 anyhow. So, failing agreement between the railways and the unions, new legislation will be necessary—in the event that the Supreme Court finds such legislation constitutional. Heretofore, the unions have handled their pension program exclusively as a political measure rather than by collective bargaining.

NOT REVOLUTIONARY: The I.C.C. rules for truck safety are decidedly not anything for any but the least cautious highway users to get upset about. A "grandfather clause" is tacked onto some of the requirements (that is, they apply to new vehicles and new drivers but not those now in service). And private carriers are entirely exempted. The commission seems to think it has control over sizes and weights of trucks—though whether or not that means it can force a state to accept vehicles larger than its roads are built to handle is undecided.

REGULATION A FLOP?: In a challenging article in this issue S. W. Fairweather, economist for the Canadian National, maintains that regulation of truck transportation is no solution to the problem, either from the point of view of the railways or the public. The unsoundness of trucking, he contends, does not lie primarily in lack of regulation, but in the subsidy it receives from the taxpayers. Truck operators should pay, not only their full share of road costs—which he shows they are not doing—but also something in the way of profit to the state. Regulation without adequate road use fees does not solve the pressing problems of highway finance, nor does it free the railways from unfair competition. If adequate fees were levied, quite possibly regulation might be unnecessary.

Distribution of Income by Coercion

In every civilized country in the world there has recently occurred, or is now occurring, a struggle between *classes* for the control of government. This control is sought to use the power of government to determine the distribution of property and income; and apparent or real victory by one class or the other is followed immediately by efforts to use the power of government for this purpose.

Leaders of labor unions claim the last national election in the United States was a victory for labor. The power of government may be used in various ways. It may be used to foster the organization of labor into national unions and to encourage such unions virtually or actually to compel property owners to comply with their demands. It may be used to compel railways and other industries to reduce the working hours and advance the wages of their employees.

Labor leaders claim the election was a mandate to use the power of government in these ways. The "sit-down" strikes occurring constitute an illegal seizure of plants by the employees who remain in them while refusing to work. When government refrains from ejecting them its power is used as certainly, although negatively, to help enforce their demands as if it were used to help them break into the plants. The means and purpose are the same as those of proposed 6-hour day legislation. The means is coercion; the end, working conditions and wages which it is assumed will give labor more leisure and a larger income.

What Did the People Vote For?

These developments raise interesting and vital questions. Twenty-seven million persons re-elected President Roosevelt. The vote for him was much too large to be construed as a class vote. Its size shows that he was supported, whatever may have been the reasons, by a large part of the property-owning middle class, especially farmers and small business men. There were also seventeen million who voted against him. Is it so certain, then, as labor union leaders assume, that a large majority of the voters intended the power of government to be used, positively and negatively, to help labor, regardless of its present compensation, to get a largely increased share of the national income? About 60 per cent of the voters supported Mr. Roosevelt. The employees of industries that are ordinarily called "labor" constitute only about 40 per cent of the workers of the country. Any increase in the *share* of the national income secured by the 40 per cent ordinarily called "labor" therefore must obviously be made at the cost of a *reduction of the share received by part or all of the other 60 per cent.* Is it so certain that even all the 60 per cent of the voters who voted for Mr. Roosevelt, to say nothing of the 40 per cent who voted against him, are going to offer no resistance to a program of governmental and labor union coercion intended to redistribute the income from property and work entirely to the advantage, real or supposed, of 40 per cent of the workers—and most of them not the workers with the smallest incomes?

Who Would Pay for 6-Hour Day on Railways?

Take, for example, the proposed legislation to establish a 6-hour working day at 8 hours' pay on the railways. Ostensibly it is a proposal to compel an increase of 33½ per cent in hourly wages and an increase in employment of about 300,000 persons at the expense of the bondholders and stockholders of the railways. But every railway labor leader well knows that the increased expense could not possibly be paid under either private or government ownership out of railway earnings derived from present rates. Actually, therefore, it is a demand that the government compel the public to give railway employees a larger share of the national income either through increased rates or increased taxes. The average railway employees are now the highest paid workers in any industry in the United States.

The average farmer would have a stroke if the government offered to use its power to assure him as high an average wage for each hour he *works* as the average railway employee now receives for each hour he *works.* Yet labor leaders are asking the government

to use its power to advance the hourly wage of railway employees 33½ per cent *more largely at the expense of farmers than of any other class* because directly and indirectly farmers, in proportion to their income, pay a larger total of freight rates and taxes than any other class.

Railway 6-Hour Day Legislation and Government Ownership

But there is much more involved in the proposed legislation for a 6-hour day at 8-hours' pay on the railways than merely an increase in railway wages and expenses. This is why it is supported by the leaders of labor unions in other industries. Congress cannot, under decisions of the Supreme Court, pass legislation regulating hours of work and wages in most other industries because they are not engaged in interstate commerce. But it is assumed, because the railways are engaged in interstate commerce, that it can constitutionally regulate working hours and wages on them in any way it pleases. There is good reason for apprehending that the establishment of a 6-hour day at 8 hours' pay on the railways would bankrupt them and drive them into government ownership; and most of the labor leaders who advocate this legislation also advocate government ownership of railways. Under normal conditions the railways directly and indirectly buy about $2,000,000,000 annually of equipment, materials and fuel from the manufacturing, mining and other industries. Under government ownership the *government* would become the buyer for the railways and would have constitutional power to compel every industry selling to the railways, by legislation similar to the existing Walsh-Healy act, either to give its employees a 6-hour day at 8 hours' pay or forego orders from the railways. And the railways do now and would under government ownership buy directly and indirectly from almost every kind of industry in the country.

How Railway Ownership Would Increase Government Power Over Other Industries

Thus is made quite plain something that almost no business man or farmer understands—viz., why, when the railroad industry is just beginning to back away from the brink of bankruptcy, the entire power of labor unionism is being used to push it over the precipice. The proposed 6-hour day legislation, especially if applied to the railways and not to competing carriers, would be the most effective means of bankrupting the railways. The bankrupting of the railways would be the most effective means of driving them into government ownership. Government ownership, by transferring to the government all buying for the railways, would give it constitutional power to dictate wages and working conditions to the large part of all the industries of the country.

Thus legislation establishing a 6-hour day at 8 hours' pay on the railways would give the government more power over the railway equipment and supply manufacturing industry, the steel industry, the coal mining industry and even such raw material industries as those producing lumber and ore, than NRA or any other similar legislation that has as yet been enacted or even proposed. Industries producing or manufacturing for both the railways and other industries could not maintain different wages and working conditions when simultaneously producing for both the railways and other industries. Thus the same wages and working conditions that would have to be established by the steel industry and the coal mining industry, for example, in order to get orders from the railways would become the wages and working conditions of these industries in producing for the automobile and every other large industry.

What Business Does Not Understand

The labor leaders believe they largely have control of the federal government now. They are planning by political action and economic pressure to get even more control of it in future. The effort to secure legislation establishing a 6-hour day on the railways is the most skillful strategic effort they could make for the purpose of enabling them to use in future their anticipated control of government to control all industry.

Labor leaders understand this. Most business men and farmers do not, but think the issue of a 6-hour day on the railways is merely an issue between railways and their employees. Labor leaders devote their entire time and energy to efforts to increase their power, while most business men and farmers devote most of their time and energies to trying to increase this year's earnings. The labor leaders are professionals in the game of politics while most business men and farmers are ignorant amateurs in it. These facts were never more strikingly illustrated than since the national election. The labor leaders have since been strenuously playing the game of increasing their power. Most business men have bidden a happy farewell to discussion of the national issues which they said last summer and fall were so vital and returned to their desks to take advantage of the years of prosperity they anticipate will follow an election in which the vote regarding these vital issues was exactly the opposite of what they hoped for.

Labor Leaders Promoting Fascism

But all this has occurred in other countries. It has occurred, for example, in Italy and Germany in which also radical policies have at times since the war won overwhelming victories at the polls. In course of time, in some of these countries the middle classes slowly awakened to a realization that the control of government was being used by socialists, politicians and labor leaders to exploit them. There followed struggles resulting in the establishment of facism and naziism which showed that elections do not always finally determine

the control of government; that other classes besides labor can use coercion; and that when coercion becomes the accepted means of determining distribution of the national income the result is less likely to be change in the distribution of it than reduction in the amount of it.

Labor leaders in this country inveigh loudly against naziism and facism. That is, they inveigh against the use of force to seize control of government for the purpose of stopping legislation, "sit down" strikes and strike violence inspired by socialists, communists and labor union leaders for their own purposes. But similar causes under similar conditions always produce similar effects; and they are beginning to use the same means for increasing their power that caused the reactions that established facism in Italy and Germany, and that probably already would have caused civil war in France if the class civil war across the border in Spain had not started when it did. Of course, "it cannot happen here," but if our labor leaders, drunken with their supposed power, are not beginning to carry out a program the consummation of which might cause it to happen here we have not read understandingly the recent history of European countries that are now torn with civil strife or in which it has been suppressed only by the establishment of dictatorships.

History shows there is nothing more dangerous to the peace and welfare of a nation than attempts to determine the distribution of wealth and income by coercion; and in the long run it makes little difference in the effects produced upon the national peace and welfare whether the attempted coercion is exercised by government in behalf of some classes as against others or in defiance of government by some classes as against others.

Former Commissioner Woodlock on the Emergency Rate Decision

Of the recent report by the Interstate Commerce Commission accompanying its refusal to extend the so-called emergency charges it can be said that it recalls the advice alleged to have been given by a veteran judge to one about to assume judicial functions: "Never give reasons for your decisions when you can possibly avoid doing so. Your decisions may be right but your reasons are quite likely to be wrong."

When in 1935 the Commission originally approved these surcharges (twice extended) it necessarily stamped them as reasonable charges which did not violate the Act. In declining to extend them it could do so only because they were unreasonable and, therefore, in violation of law. They were (presumably) reasonable in 1935 and in July, 1936, because the carriers' needs required the revenue. In 1935 Class 1 carriers earned an aggregate return on property investment of 1.79 per cent. Complete figures for 1936 will probably show an aggregate return of about 2½ per cent. The law says nothing about emergency as a ground for *advanced* rates and the Commission's use of the word throughout the entire case is mere conversation, the legal meaning of which is as just stated. Consequently we are driven to the conclusion that the charges were legal with aggregate return on carrier investment at 1.79 per cent, but became too high with carrier return about 2½ per cent!

It must be remembered that there was no clear evidence of record that these charges had violated the principle of "worth of service" by restricting business. The evidence was conclusive that a large volume of business moved under them, enough, indeed, to give an aggregate net increase in revenue to carriers of something between $9,000,000 and $10,000,000 per month. Consequently "cost of service" was the dominant factor in the case. Net return is the resultant measure of this factor. Thus in the absence of any proved limitation arising from diminished worth of service, the Commission is in the position of fixing a 2½ per cent net return as satisfying the principle of cost of service. That is the meaning of its statement that the "emergency no longer exists"; it can have no other meaning.

The Commission has no power by which it can make acts of grace, either to carrier or shipper. Its general powers over rates are specified in Section 15a, which reads as follows:

> "In the exercise of its power to prescribe just and reasonable rates, the Commission shall give due consideration, among other factors, to the movement of traffic; to the need, in the public interest, of adequate and efficient railway transportation service at the lowest cost consistent with the furnishing of such service; and to the need of revenues sufficient to enable the carriers, under honest, economic and efficient management, to provide such service."

From which we must apparently conclude that in the Commission's opinion a return of about 2½ per cent on property investment satisfies the terms of the law by enabling the railroads to furnish adequate service at this time.

Oh, yes! It sees a prospect of increasing traffic and it sees no danger of an immediate "sharp general increase" in operating expenses. It also believes that elimination of the surcharges will bring increased business and, presumably, increased revenues. Very pleasant to hear, but, as the Commission itself loves to say, not very "convincing." Convincing or not convincing, however, it is in fact irrelevant. Rates do not become illegal (because beyond reasonable maxima) on prospects much less on guesses as to the future, and the Commission had no power to condemn the surcharges on any other ground.

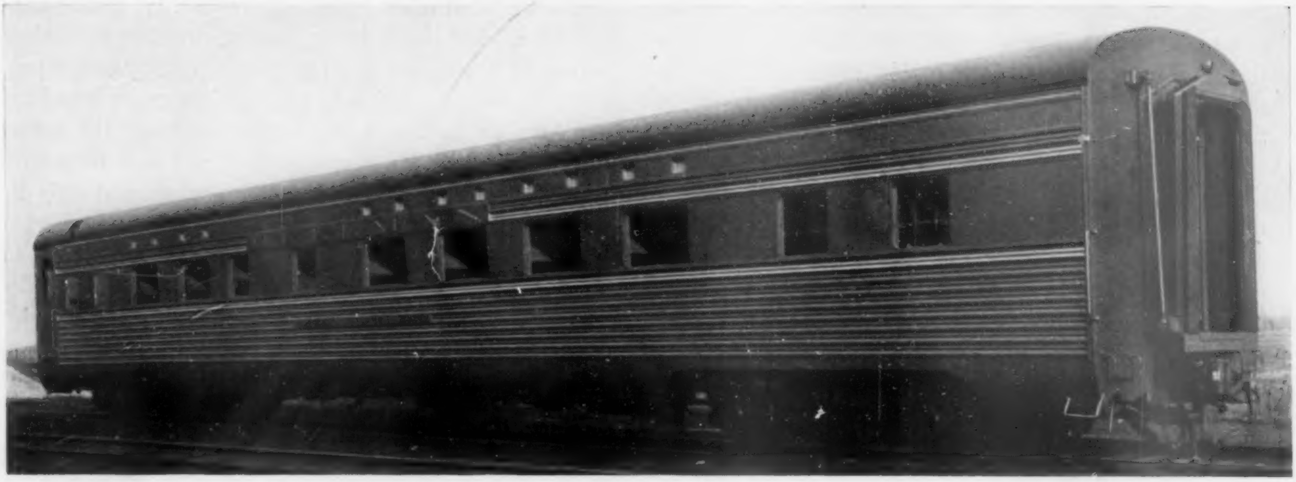
Finally, and this causes one to rub one's eyes and wonder if one is dreaming, the Commission says:

> "Shippers and receivers of freight have every reason to expect the elimination of the emergency charges at the end of this year *and an extension, in the light of our previous expressions under existing conditions, they express the opinion, would amount almost to a breach of faith.*" (Emphasis supplied.)

What have the *opinions* of shippers and receivers of freight to do with the law—or anyone else's opinions either? What have the Commission's *previous* expressions to do with the facts and the law at a time and a place? And under what provisions of the law is the Commission supposed to engage its faith to anyone or to anything but to the law and the facts?

An amazing decision as a mere decision—yes! But ten times more amazing in the light of the reasons offered in support of it.

From the Wall Street Journal

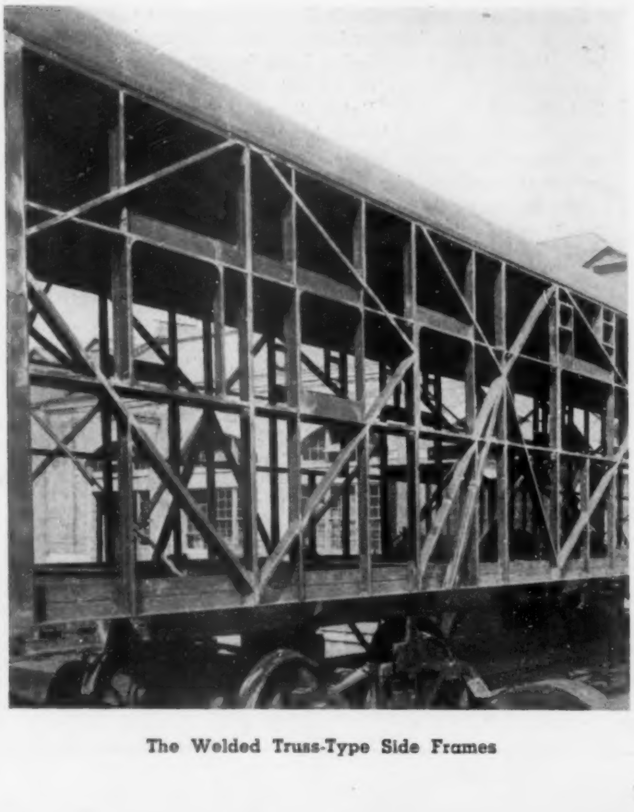


The Alloy-Steel Pullman Sleeping Car "Forward"

Pullman Lightweight Sleeper

A weight saving of about 40 per cent is effected in alloy-steel car of entirely new design

THE Pullman Company has just received a new lightweight sleeping car, called "Forward," which is unlike any previously used in modern streamline railroad equipment. This car, built at the Pullman Works of the Pullman Standard Car Manufacturing Company, embodies a new type of truss side-frame construction which, in conjunction with the use of high-tensile alloy-steel structural materials, makes the car about 40 per cent lighter in weight than a conventional Pullman car of the same capacity. The Forward has been placed in test service in the Santa Fe Super Chief, between Chicago and Los Angeles, Cal., and after January 12 will be operated and displayed on the lines of other railroads. Its introduction follows that of the Pullman Company's lightweight, articulated, two-car unit "Advance" and "Progress" which was described in the *Railway Age* issue of September 5, 1936.



The Welded Truss-Type Side Frames

The Forward is 81 ft. 6 in. long over the end sills. The inside width is 9 ft. 6 in., or 5 in. more than usual, and the inside height of 9 ft. is a reduction of about 4 in. from standard, which can be made without impairing the architectural lines and general impression of roominess of the interior. The car has a light weight of 110,700 lb. The interior arrangement comprises eight sections, two double bedrooms and two compartments. Windows are provided in the upper berths as in all of the latest Pullman sleepers. Pivoted-type folding steps, operated by the trap door in the vestibule, blend into the contour of the streamline car sides and are not visible when the train is in motion. National tight-lock couplers and Waughmat rubber draft gears are installed to eliminate slack action between cars and absorb the shocks and operating noises usually experienced when starting or stopping.

The interior color scheme of the main body of the car is in three shades of tan, with the base color of cocoa tan, wall colors of beige tan and the ceilings of warm ivory. The sections are upholstered in mauve color mohair and the window curtains of old rust, silk-faced material. The carpet throughout the main body of the car is in a green rust and plaid design. The

bedrooms are in the same combination of tan colors, with tan and brown striped window shades. The two compartments are finished in three shades of blue, and upholstered in henna rust mohair. The overhead lighting is semi-indirect, and the lower berth lighting fixtures are of cylindrical design and provide blue night lights.

Alloy-Steel Body Construction

The Forward differs from earlier Pullman developments in alloy-steel car structures, which used the conventional type of steel girder-plate side-frame construction. While this proved satisfactory in strength and gave a substantial reduction in weight as compared with the old standard steel cars, the side sheets were heavier than required for structural strength in order to obtain a smooth finish. In this new car, lighter weight is obtained by the use of a truss type of side frame to carry the load, with a light-gage sheathing applied as a covering or envelope for the frame. This type of frame has been subjected to severe tests through progressively increased loadings, a careful check having been made after each additional load and the structure finally tested to its full limitations. The stresses actually occurring in the frame checked closely with the computations on which the design was based and definitely established the structure's ability to stand up under 220 per cent of the calculated maximum safe working load.

Another feature contributing to the light but strong construction of the Forward is the extensive use of welding which simplifies many details and avoids the necessity of overlapping parts. Arc welding is generally employed in the underframe and side-frame construction and the roof is an integral spot-welded assembly. The center sill is made up of two Z-26 Cor-Ten steel sections, arc-welded at the top to form a box section construction. Bolsters, floor beams and end sills are fabricated as sub-assemblies and together with connecting parts are arc-welded in an underframe jig. The side sills are made up of two angles, 3½ in. by 2 in. and 3 in. by 2 in., arc-welded together to form a Z-section. The side-plate connection is a 3-in. 6.7-lb. Z-section, with riveted connection to the roof. The box section post and window frames are fabricated as welded sub-assemblies. These parts together with the connecting channel sections are likewise arc welded together in a side frame jig assembly. Several alloy steels are used in the structure. The side sheathing is of stainless steel corrugated for stiffness and fastened with bolts and T-nuts which in turn are covered with a stainless-steel molding. Improvement has been made on previous constructions by spot welding transverse stiffeners to the underside of the roof leaving a smooth exterior roof surface comparable to the latest turret type top being manufactured for automobiles. The traveling-roller series spot-welding machine in combination with stationary roof jigs was used in fabricating this light, rigid, unit-steel roof.

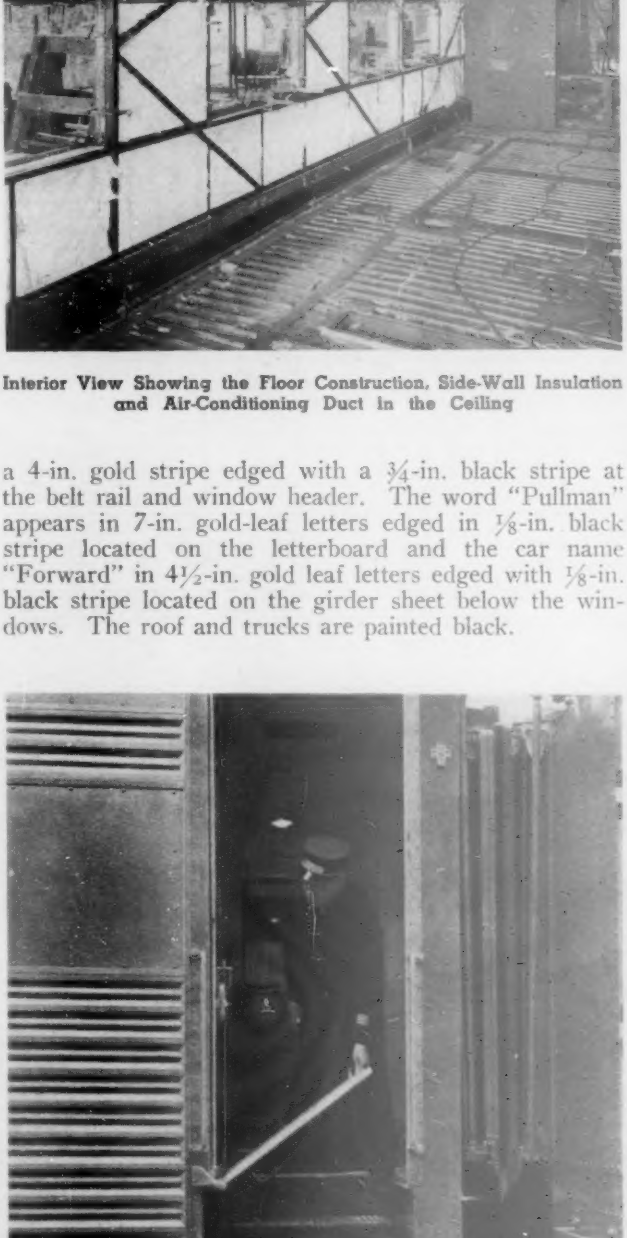
Insulation is of Fiberglas, 2 in. thick, fabricated in flame-proof muslin, both sides quilted, and installed as shown in one of the illustrations. The air-conditioning system is of the Pullman mechanical type.

The trucks are of the four-wheel triple-bolster type with alloy cast steel frames made by the General Steel Castings Corporation and Simplex clasp brakes furnished by the American Steel Foundries. The journals are equipped with Timken roller bearings.

The body-hung generator is of the Safety 4-kw. type. Storage batteries are of the Exide light-weight type, having 16 cells and rated at 500 amp. hr.

The car exterior is painted with DuPont synthetic high-gloss enamel, polychromatic gunmetal color, with a 4-in. gold stripe edged with a ¾-in. black stripe at the belt rail and window header. The word "Pullman" appears in 7-in. gold-leaf letters edged in ⅛-in. black stripe located on the letterboard and the car name "Forward" in 4½-in. gold leaf letters edged with ⅛-in. black stripe located on the girder sheet below the windows. The roof and trucks are painted black.

Interior View Showing the Floor Construction, Side-Wall Insulation and Air-Conditioning Duct in the Ceiling

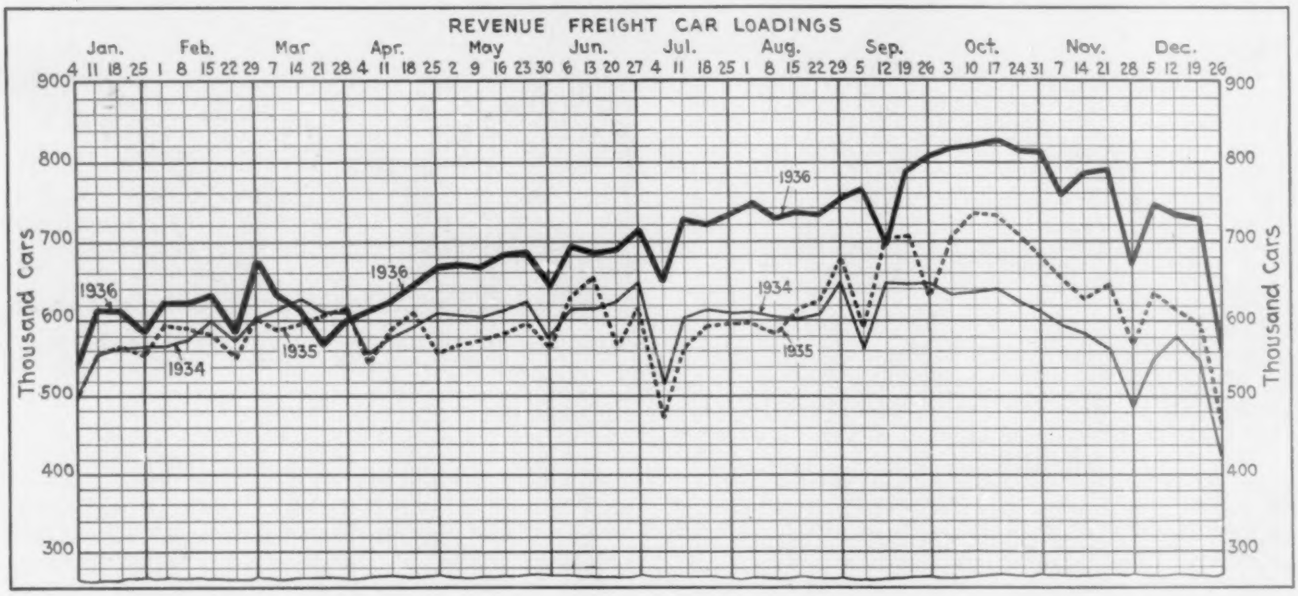


The Folding Step Construction and Side Sheathing Details

36,000,000 Cars Loaded In 1936

WASHINGTON, D. C.

FREIGHT traffic on the railroads of the United States was greater in 1936 than in any year since 1931, the Association of American Railroads announced this week. Complete reports for the year showed that 36,063,307 cars were loaded with revenue freight in 1936. This was an increase of 4,559,173 cars or 14.5 per cent above the number loaded in 1935, an increase of 5,217,347 cars or 16.9 per cent above 1934, and 6,843,255 cars or 23.4 per cent above 1933. It also was an increase of 7,883,355 cars or 28.0 per cent above 1932, but a reduction of 1,087,942 cars or 2.9 per cent under 1931.



Total loadings by commodities in 1936 compared with 1935 follow:

	1936	1935	Per cent Increase
Grain and grain products	1,803,307	1,577,053	21.4
Live stock	758,427	714,495	6.1
Coal	6,955,051	6,144,691	13.2
Coke	479,074	339,628	41.1
Forest products	1,679,083	1,383,872	21.3
Ore	1,618,974	1,036,432	56.2
Merchandise, L. C. L.	8,266,896	8,080,675	2.3
Miscellaneous	14,502,495	12,227,288	18.6
Total	36,063,307	31,504,134	14.5

Revenue freight car loading for the week ended December 26 totaled 562,218 cars, a decrease of 167,478 cars or 23 per cent below the preceding week, due to the Christmas holiday, but an increase of 95,530 cars or 20.5 per cent above the corresponding week in 1935 and 136,814 cars or 32.2 per cent above the corresponding week in 1934. All commodity classifications showed decreases over the preceding week, but showed increases over last year. The summary, as compiled by the Car Service Division, Association of American Railroads, follows:

Revenue Freight Car Loading

For Week Ended Saturday, December 26

Districts	1936	1935	1934
Eastern	127,595	111,696	101,410
Allegheny	118,434	91,006	83,430
Pocahontas	38,278	31,313	29,535
Southern	82,355	64,966	60,948
Northwestern	64,166	54,254	48,610
Central Western	83,347	72,693	66,207
Southwestern	48,043	40,760	35,264
Total Western Districts	195,556	167,707	150,081
Total All Roads	562,218	466,688	425,404
Commodities			
Grain and Grain Products	24,188	19,744	17,941
Live Stock	9,861	9,817	11,358
Coal	123,956	117,574	108,422
Coke	10,427	8,560	5,811
Forest Products	28,399	17,067	11,810
Ore	7,523	3,465	2,196
Merchandise L.C.L.	132,989	119,353	119,478
Miscellaneous	224,875	171,108	148,388
December 26	562,218	466,688	425,404
December 19	729,696	600,666	548,478
December 12	738,747	616,650	580,202
December 5	744,957	638,518	551,485
November 28	679,984	571,878	488,185
Cumulative Total, 56 Weeks	36,063,307	31,504,134	30,845,960

Car Loading in Canada

Car loadings in Canada the week ended December 26 totaled 36,142, as against 48,279 for the previous week and 30,246 for the week ended December 28, 1935, according to the summary of the Dominion Bureau of Statistics.

	Total Cars Loaded	Total Cars Rec'd from Connections
Total for Canada:		
December 26, 1936	36,142	25,016
December 19, 1936	48,279	29,586
December 12, 1936	49,710	29,605
December 28, 1935	30,246	18,694
Cumulative Totals for Canada:		
December 26, 1936	2,478,390	1,238,215
December 28, 1935	2,351,393	1,112,592
December 29, 1934	2,320,050	1,101,544

THE RAILROAD CREDIT CORPORATION on January 15, will make its thirty-seventh liquidating distribution to participating carriers, amounting to $735,407, or 1 per cent of the contributed funds. Of this amount $393,388 will be paid in cash and $342,019 will be credited on carriers' indebtedness to the corporation. This will bring the total amount distributed to 69 per cent of the fund or $50,743,089. Of this total $24,769,855 will have been returned in cash and $25,973,234 in credits.

Fifty Years an Editor of Railway Age

Braman B. Adams retires at age of 85 years, after 21 years of railway service and a half century of editorial work on railway papers

Braman B. Adams

BRAMAN B. ADAMS, senior associate editor of the *Railway Age* and a member of its editorial staff and of one of its predecessors, the Railroad Gazette, since January 1, 1887, retired from that position on December 31, 1936, thus rounding out a 50-year career in railway journalism which was preceded by 21 years of railway service. A member of the *Railway Age* news staff, Mr. Adams was also a recognized authority on signaling; and he served also as an associate editor of Railway Signaling.

Despite his advanced age—he will be 86 on April 30—Mr. Adams seldom failed to make his daily trip to the *Railway Age's* New York office from his home at 1 Adams street, Mount Vernon, N. Y., traveling on the New Haven Railroad and the I. R. T. subway. At his home in Mount Vernon he lives with Mrs. Adams to whom he was married on November 13, 1876; they celebrated their sixtieth wedding anniversary last November. Commenting upon his commuting experiences, Mr. Adams has observed how in 1887 he reached the office by the elevated railroad from Forty-second street, and how the subway opened in 1904 to shorten the ride between Forty-second street and City Hall from about 25 min. to 8 min. He added, however, that the elevated "was not half bad," for he had previously worked in New York before even that line was built, and had to ride a horse car from his lodgings in Thirtieth street down to Liberty street.

Although the term of his direct participation in transportation affairs extended back to the days "when railroads were young" Mr. Adams' interest and enthusiasm in railroading never waned. Some years ago, for example, he spoke of what had then been his 30-year campaign to promote "the proper use of the locomotive whistle," and observed that "as a reformer of vicious whistling" he was a failure—"thus far." As a precise writer—a user of the exact word and a waster of no word—Mr. Adams was without peer on the staff. His were the most difficult articles to "cut" in accordance with the exigencies of make-up. In this same connection he

Mr. Adams' Letter to Samuel O. Dunn, Announcing His Retirement

My dear Mr. Dunn:

As I have told Mr. Wright, I have been here fifty years and so plan to retire at the end of this month. I have held on too long, but have been too lacking in ingenuity to decide on any good plan to fill up my time when not held to a regular routine. If I had been on the P. R. R. I should have been laid on the top shelf fifteen years ago.

It is only a simple duty to myself and to you to testify, with thankfulness, to the fact that I have had *a cheerful job* all these fifty years. I cannot recall an unpleasant day with any of my fellow workmen, high or low, in all this time. I was in the railroad service 21 years before I came here, and those days were not entirely free from friction, but never the slightest trouble here.

My home is only 17 miles from New York City and I am not yet entirely worn out, so I shall not slacken my sympathy with railroad life.

And I must not omit to express my admiration for the great fight that you are making with those two elusive adversaries, big business and small Congress*. I don't know but we shall all die before this country comes to its senses, but it is a grand thing to keep up the battle. Strength to your elbow!

Yours truly,

B. B. ADAMS.

* Congress of small minded men.

was somewhat impatient at the verbosity of the modern publicity "release" as he was with other recent trends and ideas which clashed with his New England-born conservatism. His broad tolerance and keen sense of humor, however, blended to convert his expression of such impatience into pithy, good-natured comments which were the delight of his associates.

Writing 20 years ago on "Contrasts Between 1886 and 1916" Mr. Adams recalled that in the former year "the novelties in the railroad world were continuous steam heat for passenger trains; the vertical plane freight car coupler; the standard code of train rules; the block system; the quick-action air brake; the rotary snow-plow; and how to cope with color blindness." As habitues of the Railroad Gazette office in the early days he remembered Edward P. North and Charles Paine, two prominent civil engineers; Dr. A. T. Hadley, later president of Yale; and Arthur M. Wellington, a "brilliant young civil engineer" and author of the classic "Economic Theory of Railway Location," who was leaving his place on the Gazette staff on January 1, 1887—the day Mr. Adams arrived.

"The outstanding contrast in the pages of the paper," Mr. Adams continued, "are chiefly in the fullness of the present with the condensed character of the matter printed in the old days, when editors were few and the paper was thin. Sixteen or eighteen pages each week was the common size; though the pages were larger and some of the type smaller."

In closing this dissertation of 20 years ago Mr. Adams recalled how M. N. Forney, a Railroad Gazette editor of the early '80's, remarked upon retiring "that he thought he had worked his vein out"—"but," added Mr. Adams, "just as like as not we shall some day, say the same thing."

A notable characteristic in his approach to any problem or piece of research is that after others finish asking questions and debating he will quietly put forth a pertinent query or suggestion, which will open fresh and broader approaches to the matter under consideration.

Braman B. Adams was born at East Brookfield, Mass., on April 30, 1851, and was educated at Monson (Mass.) Academy. He entered railway service in 1865 on the Western Railroad (now part of the Boston & Albany) at Palmer, Mass. After 21 years with those roads, successively in the positions of clerk, telegrapher, yardmaster and station agent he became on January 1, 1887, associate editor of the Railroad Gazette, one of the publications which was subsequently merged into the *Railway Age*. In addition to articles in the Encyclopedia Britannica, the Times (London), and other papers, Mr. Adams was the author of "The Block System" (1901).

He was retained by the Interstate Commerce Commission in 1906, with C. C. Anthony, as an expert to make a study of block signal systems and appliances for the automatic control of railway trains, and later, upon its formation, was made a member of the Block Signal and Train Control Board. He remained on that board until its discontinuance and while on it was assigned with Col. Azel Ames to go abroad and make a study of European railway signaling practices. He was for a period of two years (1903-04) secretary of the Railway Signal Association.

Prior to the organization of the Interstate Commerce Commission in 1887, no adequate system of compiling railway accident statistics was in force. The Railroad Gazette, under M. N. Forney, did attempt to round up data each year, largely on the basis of newspaper reports, but this was far from complete or satisfactory. One of the early tasks of the Interstate Commerce Commission was to establish methods for securing adequate and accurate information about accidents, making special, thorough investigations in the case of more serious ones. Mr. Adams has always been a keen student of railway accidents and their causes and was undoubtedly influential in assisting in the setting up of adequate methods for accident reporting and investigation.

Also he contributed to the book "The American Railway" (1889) a chapter on "The Every-Day Life of Railroad Men." The latter, written nearly 50 years ago, was concluded by Mr. Adams with the observation that "Railroad officers, with their great advantages for enlightenment, owe it to themselves and their men to see that the thousands under them have fair opportunities for rising in the world, and that the owners of the immense corporations which stand as masters of such vast armies fully understand their measure of responsibility in the premises. Science and invention, machinery and improved methods, have effected great changes in the railroad art, but the American nation, which travels more than any other, still recognizes the fact that faithful and efficient men are an essential factor in the prosecution of that art. People desire to deal with a personality, and therefore wish to see the personnel of the railroad service fostered and perfected."

Commerce Body Hits "Make Work" Bills

WASHINGTON, D. C.

THE board of directors of the Chamber of Commerce of the United States has authorized publication of a report by its Transportation and Communications Department Committee entitled "Restrictive Railroad Bills", which asserts that a number of legislative proposals before the last Congress which are expected to be reintroduced this year would further restrict railroad management and force heavy increases in railroad operating expenses. They are clearly in violation of principles adopted by the chamber by referendum in 1932 declaring that regulation of railroads "should be reduced to the point where it would be confined to assurance of fair rates and public safety and will avoid interference with functions belonging to management." The report discusses particularly the bills proposed by railroad labor organizations, saying in part:

Probably the most far-reaching of the proposals—at least in its immediate effect on railroad operating expenses—is that for a basic six-hour day, requiring, however, that the railroads pay the present eight-hour wage for six hours of work.

The main effect of this proposal, if not held invalid as beyond the powers of Congress, would be to bring about by legislation a rise of one-third in the hourly wage rates—in many cases a rise of fifty per cent, where exigencies of the service require overtime.

In considering this bill it should be borne in mind that clerks and office workers, shopmen, storekeepers, maintenance of way men, signal men, telegraphers, dispatchers, and yard men including switching crews, constituting more than 85 per cent of all railroad employees, are not engaged in service on trains. The effect of the bill upon all employees other than train personnel would in general be to shorten their working day with maintenance of their earnings, and necessitate large increases in these forces.

The hours of service of the other classes of employees in this 85 per cent group, whose work is similar to that of men employed in factories or stores or on construction jobs, cannot, it appears, have any substantial effect on public safety.

To reduce those hours a third by law would be to single out

(*Continued on page 126*)

I.C.C. Issues Report for 1936

Lambastes penalty tax on sinking funds, sees car shortage threat, is swamped by truck regulation

WASHINGTON, D. C.

THE fiftieth annual report of the Interstate Commerce Commission, covering the period from November 1, 1935, to October 31, 1936, was submitted to Congress on January 5. In addition to the recommendations enumerated in the last annual report, and for reasons indicated in this and in previous reports, the commission recommends the following legislation:

Legislative Recommendations

1. That Congress, upon appropriate investigation, determine the proper limit of the commission's jurisdiction with respect to corporations closely allied with common carriers subject to the interstate commerce act, not now subject to the jurisdiction of the commission, such as fruit express companies, private car lines, forwarding companies, and holding companies which control enterprises engaged in interstate transportation or control companies patronizing or doing business with such corporations.

2. That sections 15 (1) and (3) be amended to include the power to regulate the minimum rates of water carriers otherwise within the commission's jurisdiction.

3. That section 15 (4) be amended so as to restrict the so-called "long-haul right" to originating carriers, or subsequent carriers after they secure possession of the traffic.

4. That consideration be given to the suggestions contained in the chapter entitled "Scope of Jurisdiction Over Air Carriers."

5. That Congress further consider the situation of steam railroads under the revenue act of 1936.

6. That Congress legislate to cover completely the standard time zone field.

7. That the provisions of section 22 (1) be amended in the manner indicated in the chapter entitled "Drought-Relief Rates."

Plans are being made, the report says, to take appropriate notice of the completion of a half century of the Commission's existence. The anniversary comes in March.

The report shows a continuation of the decrease which has been in progress for several years in the number of cases handled on the Commission's formal docket, mostly railroad rate cases, but this has been far more than offset by the great volume of new work, including many thousands of cases, required by the motor carrier act of 1935, which adds a long new chapter to the report. The number of pending cases on the formal docket has been reduced from 2,555 in 1926, and 1,783 in 1932, to 713 in 1936.

Traffic Growth Absorbed by Competitors

In a discussion of the traffic and earnings of transport agencies the report calls attention to statistics indicating that other forms of traffic have been growing faster than rail traffic. Taking 1923-25 as a base, the increase in truck registrations was 63.8 by 1929, while railway freight traffic showed only a modest increase in that period. Since 1929, railway freight traffic (ton-miles) has fallen to a low (in 1933) of 51.6 of that of the base period and in the latest month for which figures are available has recovered to only 81.5 of the 1923-25 base level. Meantime, truck registrations, already 63.8 per cent above the base level in 1929, in 1935 and 1936 were materially greater than 1929. The increase in gasoline consumption in 1936 over both the base level, and over 1929 as well, tells the same story for all forms of motor transport, when contrasted with the record of railway traffic in the same years.

An increase in railway employment by almost 80,000 from August, 1935, to August, 1936, was noted. It was pointed out that basic railway rates and wages were the same in August, 1936, as in August, 1935, but that the former would fall at the end of December by reason of the Commission's refusal to extend the emergency freight charges beyond that time. Meantime, a slight rise in wholesale prices during the period was noted—representing, however, a large increase from the low point of the depression in 1932.

Attention was drawn also to the persistence of railroad receiverships during 1936—87 roads with 68,345 miles of line (almost 27 per cent of total mileage) being in that status in October, 1936. Using 1935 figures the report says that, except the electric railways, other carriers had relatively better gross earnings, compared with the 1923-1925 average, than did the steam railways.

Lower Fares Benefit Railroads

Commenting on its action in ordering a reduction in passenger fares, effective on June 1, the Commission says it has brought about greater uniformity in passenger fares throughout the country and that "the traffic and revenue results from the reduced fares thus far have been gratifying." During the first three months, June to August, inclusive, under the reduced fares in the eastern district the percentage increase over the same period in 1935 has been 31.8 in number of passengers carried, 16.2 in gross passenger revenues, and 37.6 in passenger-miles.

Suggesting that the situation of the steam railroads under the revenue act of 1936 should have the further consideration of Congress, the Commission says that while failure of most of the companies now in receivership or seeking reorganization "was due principally to loss of traffic to competing instrumentalities of transportation, both private and public, and to decline of traffic because of the general business depression," "poor financial structures and unwise surplus and dividend policies were chiefly responsible for the failure of some of these companies, and were contributing factors in the failure of most of them," and that "many of the railroad companies now in trouble have been handicapped from the beginning of their corporate existence by finan-

cial structures overloaded with funded debt." Continuing, the report says that the Commission has been requiring the establishment of sinking funds in order to reduce the burden of bonded debt on the financial structure carriers, but that sinking funds are subject to penalty taxation under the Revenue Act of 1936—

"Those companies which have weak financial structures and should use their income to improve their property, retire funded debt, and build up a liquid surplus against a day of future trouble will, if they undertake to do so, be subject to a penalty, whereas railroad companies with strong financial structures, and able to finance their requirements through the issue of stock, may distribute all their income and thus escape the surtax."

The Commission is frequently prevented, the report avers, from obtaining full information on transport operations by reason that some companies affiliated with railroads—fruit express companies, private car lines, forwarders, holding companies—are not subject to I.C.C. scrutiny. Congress ought to look into this matter and decide whether I.C.C. jurisdiction ought not be extended.

The provisions of section 22 (1) ought to be modified so that carriers making reduced rates to relieve "calamitous visitation or disaster" be not deemed guilty of undue prejudice or discrimination for their charitable action.

Congress Urged to End Time Chaos

Time standards in this country are disintegrating, more and more communities setting up local self-government in this matter. This is leading to increased confusion to interstate commerce, and the Commission wants Congress to occupy the field completely and "establish the standard time of the United States."

The I.C.C. believes the experience of over half its field force in sleuthing for the Wheeler committee investigating railroad finance will be good experience for them, but it is, in the meantime, somewhat handicapping them in performing their regular duties.

There were filed during the year 125 applications for authority to abandon 1,897 miles of line and the Commission issued 116 certificates authorizing 1,903 miles to be abandoned. Five applications, involving abandonment of 112 miles, were denied, and 15, involving 249 miles, were dismissed.

Actual issue of $982,000,000 of securities was authorized during the period under review—approximately $100,000,000 of the issues being stock, $469,000,000 being mortgage bonds, $104,000,000 collateral trust bonds, and $79,000,000 equipment trust obligations. In addition, some 4,420,000 shares of no-par stock were authorized. However a large part of these issues was to meet maturities or in exchange for existing securities, so that the net increase in capitalization authorized, actual issue, was $113,000,000 plus 60,000 no-par shares; and $74,000,000 of the new money was raised by the sale of equipment trust obligations. Refinancing outstanding bonds at lower rates of interest was a marked characteristic of the year, and totaled $633,000,000.

Fourteen reorganization plans for bankrupt carriers were filed during the year—11 of them by the carriers themselves—which plans evidence "a commendable effort to simplify capital structures." Hearings were held on nine of them. Shippers of perishables persist in filing false loss and damage claims and the carriers in numerous cases pay these without adequate investigation.

Important Changes in Operating Statistics

The Bureau of Statistics continues to make available further interesting data bearing on the efficiency of operation. Revenue figures are made available two weeks earlier than they used to be—based on estimates voluntarily returned by the roads in advance of their sworn reports. Changes in operating statistics reports instituted during the year include the following:

1. Elimination of mixed trains as a separate class;
2. Addition of freight train-switching locomotive-miles;
3. Subdivision of passenger service between suburban and regular;
4. Addition of passenger-train hours and average speed of passenger trains;
5. Separation of combination car-miles from coach car-miles;
6. Addition of yard switching locomotive-miles;
7. Amplifying fuel statistics by showing separately Diesel fuel, gasoline, and electricity in freight, passenger, and yard services; and
8. Addition of the number of unserviceable rail motor and passenger cars.

New rules for separating expenses between freight and passenger services differ from previous practice in extending the separation to cover taxes and certain rentals, to permit of stating the net railway operating income for each service, and in the substitution of relative gross ton-miles of freight and passenger trains for relative fuel consumption as a basis for dividing maintenance expenses of tracks used in common by the two classes of trains.

Sees Danger in Car Situation

The Commission finds no net improvement during the year in the equipment situation. It says:

"Our representatives in the West and Northwest report that a day-to-day situation exists with respect to the supply of large cubical capacity box cars and box cars for high class loading such as finished lumber. Western carriers state that their cars are not being returned. An increasing demand for open-top cars for coal lading has resulted in sporadic shortages."

"Withdrawal of open-top cars from promiscuous use on foreign lines by order of the Car Service Division of the Association of American Railroads; reduction in the number of cars under load with unbilled coal; increased repairs to cars in bad order; and the expedited movement of loaded and empty cars of this description will tend to relieve the situation.

"Between November 1, 1935, and October 31, 1936, surplus box cars decreased from 133,918 to 64,589 cars, a difference of 69,329 cars or 51.8 percent. Surplus gondola, coal, and coke cars declined from 61,408 to 17,119 cars, a difference of 44,289 cars or 72.1 percent. For all freight cars the surplus decreased from 232,688 to 111,533, a difference of 121,155 cars or 52.1 percent. During the same period freight-car ownership declined from 1,842,122 to 1,762,028, a difference of 80,094 cars,

4.4 percent. During that period 35,344 new units of railroad-owned freight cars were added.

"In our report for the year 1935 we mentioned the inauguration of an average per diem plan for box cars, under which settlement for such cars on foreign rails is upon a basis of the average detention per car for the corresponding month in a 3-year test period. According to the proceedings of the May, 1936, meeting of the Association of American Railroads, Division II—Transportation, the carriers themselves are divided as to the desirability of the plan, particularly from the point of view of western originating lines. Further factors being questioned are those of the effect of the plan upon the maintenance of box cars and a disturbance of car-hire balances."

Rate suspensions were asked 392 times during the year and of these 138 were granted, 164 denied and 90 otherwise disposed of. There were 505 applications for Fourth Section relief and 489 orders entered. Of the latter, 71 were denials, while the remainer granted either continuing or temporary relief.

The Valuation Bureau has continued its work as record keeper of value and costs, and has concentrated its attention on carriers in receivership or likely to be involved in reorganization proceedings under the Bankruptcy Act. Reports of the Bureau of Safety and of the Bureau of Locomotive Inspection are to be published separately.

Bureau of Motor Carriers Swamped With Work

A 20-page chapter of the report is devoted to the work of the Bureau of Motor Carriers, and it is stated that "we are convinced that the Motor Carrier Act, 1935, established a sound and workable system of regulation for motor carriers, and while there are certain provisions that might well be strengthened or clarified, we do not feel that we should recommend amendments to the act until we have had longer experience in its administration." The act became effective on October 1, 1935, but it was found necessary to suspend several sections of the act to March 31, 1936. At present this bureau employs a total of 653 persons, of which 452 are in Washington and 201 in the field.

One of the basic requirements of the act is that every common carrier by motor vehicle shall obtain from the commission a certificate of public convenience and necessity, every contract carrier a permit, and every broker a license. A total of 83,753 applications have been filed for certificates, permits, or licenses under the "grandfather" clauses of the law, and about 5,000 have been filed since for authority to continue or institute operations or extensions after October 15. Protests have been presented against granting applications under the "grandfather" clauses in about 40,000 cases, chiefly upon the ground that, in whole or part, the claims are not in accord with the facts. These protests have been made largely by railroads, other motor carriers, and state commissions.

Motor Carrier Rates

"If hearings are necessary in all the protested cases," the report says, "action on the applications will be prolonged over a very long period of time, especially if we are unable to increase the staff of the Bureau materially. We hope, however, through the plan of checking which is being followed and with the cooperation of applicants and protestants, to reduce the necessity for hearings to a comparatively small percentage of cases and to be able to issue a very large number of the certificates, permits, and licenses within a comparatively short time."

"Comparatively little consideration has been given," says the report, "to the question of what is inherently an appropriate and reasonable basis for stable and orderly motor-carrier rates, for the transportation of property, filling the needs of both carriers and shippers. Within the trucking industry, there seems to be two schools of thought. Many of the carriers seem content to use the railroad rates as a model, making only such differences as are necessary to attract traffic. Others are endeavoring to establish simplified rates and classifications, based fundamentally on trucking conditions and costs.

"As yet, shippers have filed no formal complaints attacking the lawfulness of motor-carrier rates, although they have in some instances requested the suspension of changes in these rates. That complaints are likely to arise seems evident, for there are many departures from uniformity in the rates charged by the carriers, even where the same commodities and the same territory are involved. The complaints so far filed with us, however, have been by one motor carrier, or a group of carriers, against rates alleged to be unreasonably low and established by another carrier or group of carriers.

Regulation Has Reduced Truck Rates

"Our information is that the first result of compelling the motor carriers of property to publish and file their rates was to precipitate a downward movement in such rates. Competing motor carriers, of which there are a very large number, were by the publication given definite advice of what each was charging, and the natural tendency was for the rates to gravitate to the lowest level. This tendency has caused great concern among motor carriers, for it resulted in a depression in the net earnings of many of them at a time when operating expenses were increasing. They are making efforts, through conferences, and with some apparent success, to check this tendency, as well as to avoid destructive competition and to bring some of the unduly low rates up to a level which will enable them to maintain reasonable wages and working hours for employees, and provide adequate service to the public. But there is no apparent indication of a tendency to make the rates unreasonably high.

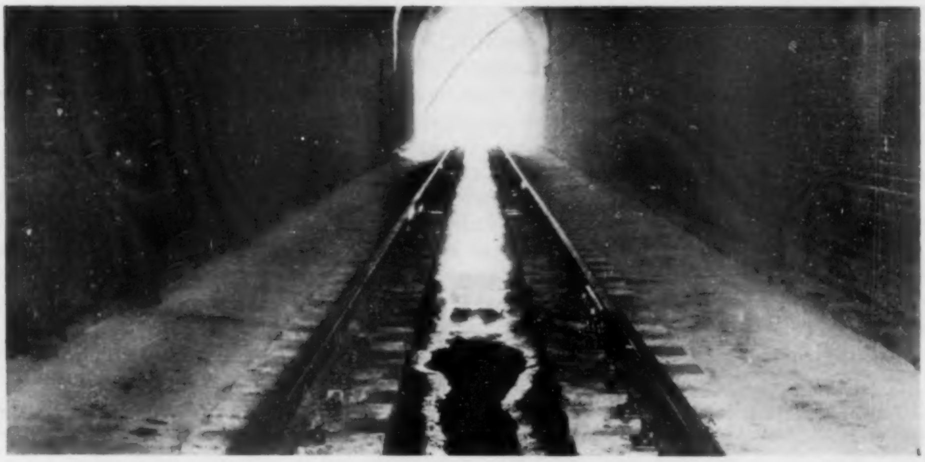
"These attempts at stabilization and avoidance of unduly low levels have been made by the motor carriers themselves. We have been asked to assist at times by suspending proposed rate reductions, but this we have so far done in comparatively few cases. As yet, rail carriers have not sought increases in motor-carrier rates through complaints filed with us, but in a few instances they have joined with motor carriers in requests for suspension.

"The tendency of the rail carriers has been to continue to reduce their rates to meet motor-carrier rates. The motor carriers have frequently protested against proposed reductions by rail carriers and in some cases we have suspended such proposals pending investigation. In the majority of cases, however, these proposals, after investigation, have been found justified and permitted to become effective."

Violations Legion, Prosecutions Lag

Of nearly 3,000 complaints of violation of the Motor Carrier Act made to the Commission, 332 were dismissed—some because of insufficient grounds and others because the violators promised to behave better hence-

(*Continued on page 118*)



The Lowered Floor Should Require Little Maintenance for Many Years

Care and Precision Feature Rebuilding of Tunnel Floor

Increased vertical clearance secured by constructing concrete slab at lower level—Non-shrinking grout holds tie blocks securely

ONE of the last projects undertaken in the extensive program of the Chesapeake & Ohio for removing tunnel clearance restrictions over its route through the Allegheny mountains in Virginia and West Virginia, was that of lowering the tracks in old Big Bend tunnel, the largest tunnel on the road, where conditions made it desirable to install a solid concrete floor with short embedded timber ties or tie blocks.* The work in this tunnel required the greatest care to avoid damaging the existing tunnel lining, and close precision in the placing of the ties to insure accurate grade and alinement.

A feature of the work which proved of advantage was the use of Embeco grout in setting the short ties, a grout which not only produced early high strength, but which had no shrinkage during setting and curing. Through the use of this grout, it was possible to restore traffic to the tunnel shortly after the work was completed, and firm permanent anchorage of the tie blocks in the concrete was assured without the usual shrinkage cracks surrounding them to admit moisture and hasten their decay.

Eleven months after the completion of the work in the tunnel, a careful inspection of the floor showed it to be in perfect condition, with no detectable shrinkage of the grout around the blocks. As a result, the rails were in as good surface and alinement as when laid, with no apparent reason why this condition should not continue indefinitely so far as the floor structure is concerned.

New Tunnel Adjacent

Old Big Bend tunnel, located near Hinton, W. Va., is a single-track tangent bore 6,537 ft. long. It was built in the "Seventies" through strata of shale and sandstone, and, after several sizeable roof falls due to weathering, it was completely lined with brick between 1881 and 1893. The floor, however, which carried a stone ballasted track, remained the natural shale and sandstone.

Big Bend tunnel is referred to as old, not because of its age, but rather because in 1932 a new large-bore, single-track tunnel, 6,152 ft. long, now known as new Big Bend tunnel, was holed through approximately 100 ft. to the south, to afford double-track operation through the mountain at this point with unrestricting clearances over at least one of the tracks. The new tunnel, which, since its completion has been used to carry eastbound traffic, has a concrete lining and a concrete floor throughout.

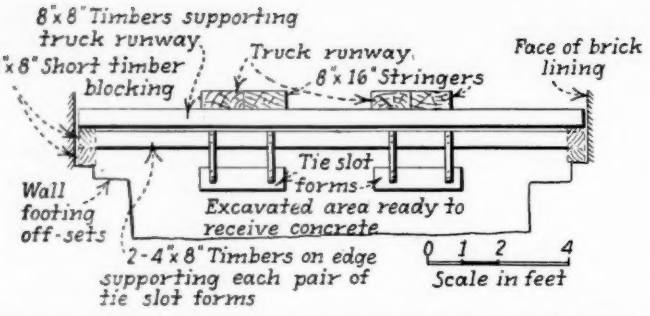
The new and larger tunnel eliminated the necessity for detouring unusually large cars or loads around this section of line in either direction, since any large loads moving westward could be handled against the current of traffic through the new tunnel. However, under the heavy traffic conditions which prevail on the main line, this was far from a satisfactory solution of the problem, and was tolerated only until all of the less satisfactory tunnel conditions on the main line had been cleared up.

Special Considerations

When this condition had been arrived at, the enlargement of old Big Bend tunnel was undertaken to make it large enough to carry the largest equipment on the road. This was a problem solely of increasing the vertical clearance approximately 12 in., the tunnel already being of adequate width. During the work, all westbound traffic was diverted to the new tunnel. This greatly simplified and reduced the cost of the construction operations.

Because of the brick lining, which was in good con-

* The earlier work in the program, which, up to the end of 1932, involved the building of five new single and double-track tunnels and the enlargement of eight other tunnels, was described in issues of the *Railway Age* for Nov. 5 and Nov. 12, 1932.



Cross-Section of Lower Part of Tunnel, Showing Runway for Carrying Concrete Trucks Over Green Concrete and Arrangement for Supporting Tie-Slot Forms

than the tie blocks to be inserted later, thus providing for slight adjustment of the blocks as placed and for securing them in place with the non-shrinking grout.

Placing Tie Blocks

One of the most precise features of the work was the placing of tie blocks themselves in order to insure accurate line and surface. This was done by first establishing guide tie blocks at intervals of approximately 50 ft. on sections of uniform grade, and at intervals of approximately 25 ft. on vertical curves. These guide tie blocks were the same as the intermediate tie blocks, except that their tops had been planed to a perfectly true surface.

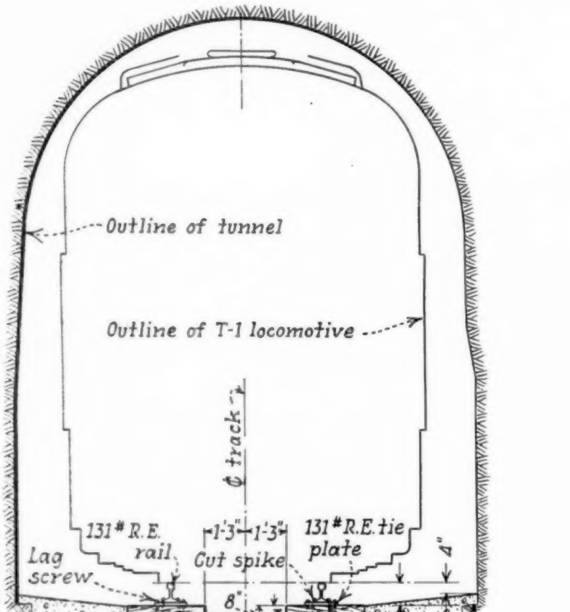
Each end of each guide block was set to accurate elevation by a wye level, and the position of the inside lag screw hole was lined accurately with a transit. As set, each block was grouted in position, employing Embeco as an admixture to secure early high strength and non-shrinkage. The actual placing and grouting of the blocks was accomplished by first placing grout in the slots and then forcing the tie blocks down into it. This caused any excess grout to squeeze up along the sides and ends of the blocks, holding them in position, and, at the same time, insured the filling of the space beneath the blocks and tended to force any air bubbles out of the grout. After each guide tie block was set in this manner, additional grout required along the sides and ends was poured in from the top.

The intermediate tie blocks between guide blocks were set accurately to line and surface by stretching piano wire between the successive guide blocks and using this as a guide. When all of the tie blocks had been placed and the grout had hardened, tie plates were applied, each being held by two lag screws. All of the prebored inside lag screw holes, because of the precision in placing the tie blocks, lined up perfectly for setting the plates and the rails to gage, but a number of the outside holes, due to slight irregularities in boring, had to be plugged and rebored to match the tie plate holes.

The concrete placed in the tunnel floor employed limestone coarse aggregate, graded from No. 4 to 2½ in. screens, and limestone fine aggregate graded from 100 mesh to No. 4 screen. The mix in the slab, dry rodded, was 5 cu. ft. of cement, 9.85 cu. ft. of sand, 17.2 cu. ft. of stone, and 35 gal. of water. This produced a concrete having an average strength of approximately 4,300 lb. per sq. in. in 28 days.

The grout used in anchoring the tie blocks consisted of equal parts of sand and Portland cement, to which 23.5 lb. of Embeco was added per bag of cement, without displacing any of the cement. Embeco is a prepared powdered metallic aggregate, which not only produces non-shrinkage qualities in concrete and mortars, but also more rapid development of strength than is possible with ordinary Portland cement mixes. The Embeco grout used in anchoring the tie blocks in the tunnel is said to have developed a compressive strength of approximately 3,800 lb. per sq. in. in 24 hours.

The work of lowering the tracks in old Big Bend tunnel was planned and carried out under the general direction of C. W. Johns, chief engineer of the C. & O., and under the immediate direction of I. L. Pyle, assistant chief engineer, represented in the field by E. G. Rice, district engineer, and C. B. Porter, resident engineer. The actual construction work, except the track work which was done by company forces, was handled under contract by Boxley Brothers, Inc., Orange, Va.



Cross-Section of Old Big Bend Tunnel, Showing New Concrete Floor

I. C. C. Annual Report

(Continued from page 115)

forth. Three cases were turned over to the Department of Justice for criminal prosecution and injunctions were sought in four cases. Court action in other cases will soon be recommended.

"Manifestly," says the report, "vigorous enforcement of the act is essential to its successful administration. There is a strong public expectation of benefit from the establishment of safety regulations. Responsible operators in the industry are expecting relief from recognized evils in respect to chaotic rates and unfair competition. No police force has been created for the detection and apprehension of violators, and we do not now recommend the creation of such a force. But we do recognize that for adequate enforcement we shall have to depend in large part on the willingness of the industry to police itself by reporting violations to us and also upon the cooperation of other branches of the Government and of State commissions and officials."

The Commission closes its report on the Bureau of Motor Carriers by telling how handicapped its work has been by reason of an inadequate appropriation, which has led it to ask the Budget Bureau for $1,300,000 more money for the current year.

I.C.C. Motor Carrier Safety Rules

Initial requirements are modest, include "grandfather" clause and exempt private carriers

Washington, D. C.

RULES and regulations governing the qualifications of employees and safety of operation and equipment of common carriers and contract carriers by motor vehicle, both freight and passenger, engaged in interstate commerce, were prescribed by the Interstate Commerce Commission, Division 5, in a report and order made public on December 30 in Ex Parte No. MC4.

According to the report these regulations represent the selection for immediate attention out of a "long-term" connected program of broad scope, which was outlined in a booklet of proposed regulations issued on July 1, of "certain important items which may be expected to improve definitely the safety of operation of a large proportion of the carriers subject to regulation, yet not to hamper the advanced safety work being carried on in some parts of the country and in some units of the motor transport industry." The purpose has been to set forth these initial regulations in somewhat general terms, yet in terms which can be supplemented and strengthened by more definite specifications and requirements in the light of further study and experience.

Nation-Wide Uniformity a Goal

The regulations are regarded as an important contribution toward nation-wide uniformity in highway safety rules for motor carriers. They are divided into four main parts: qualifications of drivers, basic rules for the driving of motor vehicles, and requirements as to parts and accessories necessary for safe operation, all of which are made effective as of July 1, 1937; and rules for the reporting of accidents, effective April 1, 1937.

In the preparation of the regulations, representatives of the commission held conferences with many interested groups in all parts of the country—hundreds of people were interviewed, and three public hearings were held. On July 1, 1936, the commission issued a booklet of proposed regulations, to the number of over 8,500 copies, and the comment and criticism which was received were used to guide the commission in its final decisions on the regulations. The commission has issued these rules at this time in the hope that they will be used by state legislatures this year in the consideration of uniform legislation. More than 40 legislatures will meet in 1937.

A detailed report by Division 5 of the commission, composed of Commissioners Joseph B. Eastman, William E. Lee, and Marion M. Caskie, issued in conjunction with the regulations, discusses various questions of policy and explains the decisions made on numerous detailed items. It gives a brief review of the present highway accident situation, and makes it clear that the jurisdiction of the Commission extends only to the motor carriers of passengers and property operating interstate. The report goes on to say that "It is hoped and believed that our findings upon such basic safety elements in the operation of interstate buses and trucks as properly qualified drivers; sound driving rules; adequate brakes, lights, and other parts and accessories upon vehicles; and a proper reporting of accidents, as well as upon other important matters to be considered in the future, will provide a definite impetus toward greater uniformity in the statutes and regulations of the several states, and thereby toward better understanding of and compliance with highway safety requirements by the general public."

"The task of establishing highway safety regulations on a national scale is not an easy or a simple one," the report says. "Hitherto, the several States have exercised jurisdiction over these matters, and a very pronounced lack of uniformity has been the unavoidable result.

"A similar situation exists in the motor transport industry itself. Certain operators have achieved noteworthy results through their own careful control of personnel and equipment, working often in close co-operation with state and municipal regulatory agencies. On the other hand, numbers of operators have been unable or unwilling, for divers reasons, to devote the requisite time and effort to making their operations safe and keeping them so; and the absence of proper guidance and instruction has been at least a contributing factor in this situation.

"Given this wide diversity of existing regulatory practice among the states, and of knowledge and experience along safety lines among the operators, we have found it necessary to seek a middle ground for our initial regulations.

1. The Connected Program

"In the proposals issue on July 1, 1936, a "long-term program" was outlined as necessary to accomplish the desired purposes of decreasing accidents, saving human lives, and reducing property losses, in operations subject to the act. This program has been amply supported by the record. It embodies the following elements:

Control of the Driver—

Qualifications of drivers, with identification of each driver.
Examination of drivers as to physical condition, knowledge of driving rules, and competency to operate safely.
Limitations on hours of service.
Licensing of drivers, either in collaboration with state agencies or by the commission itself, with provision for suspension and revocation of licenses for cause.
Rules for the driving of motor vehicles.
Encouragement of good driving habits and attitude, and promotion of driving skill.

Control of the Vehicle—

Parts and accessories necessary for safe operation.
Inspection and maintenance requirements.
Identification of vehicles.
Motor vehicle standards (size and weight).
Special requirements for vehicles transporting dangerous articles.

Reporting of Accidents

2. Initial Regulations

"The regulations now promulgated cover four points in the broad, long-term program:

Qualifications of drivers, with identification of each driver.
Rules for the driving of motor vehicles.
Parts and accessories necessary for safe operation.
Reporting of accidents.

"It is believed that these regulations represent sound safety practice and justify every reasonable expectation of favorable results. Full care has been taken to make

them both practicable and efficacious, and yet to avoid placing any unreasonable burden upon the carriers affected. It should be noted that in all cases they are set forth as "minimum requirements," thus encouraging carriers to retain their present safety requirements or to add others which may be more stringent, so long as they are not inconsistent with these regulations and tend to a greater degree of precaution against accidents.

3. Future Requirements

"The carrying out of the indicated long-term program will only strengthen the general provisions contained in these initial regulations. Three or four examples may be cited.

The provisions as to "Qualifications of Drivers" embody requirements which are manifestly desirable, such as "good physical and mental health," "good eyesight," and the like. Responsibility is directly placed upon the motor carrier to satisfy himself that his drivers meet these requirements. There will be opportunity in the future, however, for the commission to assist the carrier more definitely in this respect by considering uniform requirements as to medical examinations, and the determination of practical minimum standards for such examinations.

In the rules as to "Driving of Motor Vehicles," provision is made to protect against the hazard of a driver whose ability or alertness is impaired through fatigue, illness, or other cause. This involves the subject of the hours of service of drivers, upon which investigation by formal hearings has already begun.

Also in the rules as to "Driving of Motor Vehicles," special reference is made to vehicles transporting inflammable liquids and gases in connection with the requirement for full stops at railroad crossings, and for the night-marking of disabled vehicles. Common carriers by motor truck are now subject to the "Regulations for the Transportation of Explosives and Other Dangerous Articles on Public Highways by Motor Truck or Other Vehicle, Prescribed Under the Act of March 4, 1921," of the commission, effective March 1, 1935. It has been deemed best, however, not to extend to contract carriers the application of these regulations concerning transportation of explosives and other dangerous articles without further consideration of the problems involved.

Qualifications of Drivers

The qualifications prescribed for drivers are based upon the best existing practice among motor carriers with large organizations and efficient personnel control, and upon the experience of states regulating drivers of public carrier vehicles through licensing systems. These qualifications, as already indicated, are stated in general terms, but in such manner as to indicate clearly those characteristics which are requisite in every person who drives motor vehicles in carrier service.

Item 3 (j), fixing minimum age limits for drivers, is generally consistent with state regulations, which in the majority of cases set this limit at 21 years for bus drivers, and in many cases, for common and contract truck drivers. Some large carrier organizations set an even higher limit as the minimum age, often 25 years. It is realized, however, that to apply the minimum age limit of 21 years to drivers now employed might work a hardship through the loss of jobs by some drivers under that age who are rendering satisfactory service. Therefore, due allowance has been made for this contingency by making the minimum age of 21 effective to new drivers who shall enter the service after the effective date of the regulations.

Driving of Motor Vehicles

The driving rules have been reduced to the fundamentals deemed essential for the guidance of those who will drive motor vehicles coming within the provisions of the Act. It will be at once apparent that these rules are for the governance of drivers who are already familiar with the ordinary operation of motor vehicles, a familiarity which in itself is one of our required qualifications. They are not intended, in any sense, as a complete compendium of driving instructions, but rather as a compilation of certain fundamental requirements which must be observed for increased safety.

The basic rule with respect to speed (Rule 7) is contained in nearly all state speed laws. The reference to a prima facie speed limit, which was included in the original proposals, has been deleted and there has been substituted therefor the requirement that driving speed shall not exceed that permitted by the laws of the state or legal sub-division in which the driver may be operating. We are of the opinion that no completely satisfactory solution has yet been found for the problem of controlling motor vehicle speed upon the open highway. The subject will receive our closest attention in the light of our continuing experience.

Rule 14 requires that a full stop be made at all railroad grade crossings, except those specifically protected, by all motor vehicles transporting passengers, and high explosives, inflammable liquids, corrosive liquids or poisonous gases and requires all other motor vehicles to reduce speed upon approaching railroad crossings to a rate enabling a stop before reaching the crossing.

Parts and Accessories Necessary for Safe Operation

Although the driver is the chief element in highway safety, and his own qualifications and his observance of sound driving rules are of prime importance, the proper mechanical equipment of his vehicle is a hardly less vital factor in the reduction of accidents. What we have had to bear in mind is that the vehicles subject to our jurisdiction cannot be radically altered overnight, and that the objective should be practicable and reasonable regulations, designed to improve definitely their safety of operation without imposing undue burdens upon their owners.

Certain provisions which are regarded as being impractical to require of motor vehicles now in operation are required of new vehicles purchased after a specified date.

By way of general comment on the section relative to parts and accessories, it may be said that the art of motor vehicle construction and operation is one of constant change and improvement. To recognize the need for certain minimum standards, and yet to leave the way open for further technical advance, has been a guiding principle in our consideration of these matters. These parts and accessories are important factors in safe operation, but the motor vehicle itself, particularly its size and weight, must also be considered. We are empowered by the act to investigate this subject. At least insofar as the regulation of sizes and weight of motor vehicles and combinations thereof has a bearing on safety of operation in interstate or foreign commerce, we believe that we now have authority to undertake such regulation. If it should prove that additional federal legislation is needed to protect the public interest with respect to this matter, it will be our duty under Section 225 of the act to report to Congress accordingly. Discussions have already begun with other interested government agencies to outline the elements of the problem, looking toward such early action upon it as is within our authority and as our appropriations will permit.

Reporting of Accidents

Indispensable to any consideration of safety is a knowledge of the circumstances and the conditions under which accidents occur and the determination of their extent and causes. The commission intends to make studies of this problem through the reporting of accidents by carriers. We have made provision that the accident reports filed by motor carriers shall be for the information of the commission, and shall not be open to public inspection.

In setting up the requirements for the reporting of accidents we have endeavored to reduce to a minimum the burden imposed upon the carrier, while at the same time securing necessary information as to their occurrence. In the initial instance, carriers will be required to mail promptly a brief report of pertinent information concerning any accident resulting in death, personal injury requiring medical attention, or property damage amounting to $100 or more, to be followed by a more detailed report upon a standard printed form to be supplied by the commission.

Private Carriers Exempted

Under date of July 30, 1936, we instituted an investigation known as Ex Parte MC 3 into the matter of the need for es-

tablishing reasonable requirements to promote safety of operation of motor vehicles used in transporting property by private carriers, but as yet no hearing has been had under this order. There are administrative difficulties in dealing with these private carriers, principally because the act does not require them to obtain from us authority to operate and there are, therefore, no applications on file enabling us to identify and locate them. For these and other reasons, they present a problem requiring special consideration. Therefore this report and order, and the rules and regulations prescribed thereby, do not cover the operations of private carriers.

Section 203 (b) exempts certain specified operations from the general provisions of the act, although not from the provisions of Section 204 under which we have prescribed the rules and regulations covered by this report. No testimony was submitted at the hearings covering many types of such operations, and the same administrative problem exists with respect to them as to private carriers. Further, these special operations to a large extent appear to be intra-state in character. We therefore consider it unwise on the basis of the record in this case to prescribe rules and regulations governing the special operations of common and contract carriers set forth in Section 203 (b) of the act. It is our present intention to amend our order dated July 30, 1936, in Ex Parte MC 3, so at to include these special operations with those of private carriers in our further consideration of these matters.

New Rate Advance Hearings Before I.C.C.

Washington, D. C.

A NEW series of general rate advance hearings was begun before Commissioner Clyde B. Aitchison of the Interstate Commerce Commission and a committee of state commissioners at Washington on January 6 on the proposals submitted by the railroads for a readjustment of freight rates, including both increases and decreases but in general designed to offset in part the loss of the revenue from the emergency charges which expired on December 31. The emergency charges produced additional revenue amounting to $74,000,000 during the period they were in effect in 1935 and about $109,000,000 in the first eleven months of 1936.

The commission's largest hearing room was crowded to overflowing when the hearing began, mainly with representatives of shippers who desire to oppose increases on commodities in which they are interested, but it was arranged that the first testimony should be general evidence submitted by the railroads, after which various commodities will be taken up in order. It was planned to continue the hearings to January 15 or 16 and then take an adjournment for about ten days because of the inauguration ceremonies in Washington.

Testimony of Dr. Parmelee

The first witness was Dr. Julius H. Parmelee, director of the Bureau of Railway Economics, who presented the fundamental statistical evidence showing the need of the railroads for additional revenues to meet their rising expenses. He was to be followed by J. M. Symes, vice-president in charge of the operations and maintenance department, Association of American Railroads.

Dr. Parmelee told the commission that because of increased prices the annual cost of materials and supplies of all kinds used by the railroads, including fuel, is now approximately $140,865,000 greater than it was in May, 1933. This estimate takes into account, he said, the increases in the prices of iron and steel articles which have become effective within the past month. The cost of cross-ties of all kinds and other forest products used by the railroads, Dr. Parmelee said, is now 38 per cent higher than it was in May, 1933, while for iron and steel products there has been an increase of 19 per cent, although for certain iron and steel materials which the railroads buy in great quantities, the increase in cost compared with May, 1933, ranges from nearly 25 per cent up to 42 per cent. The cost of various miscellaneous items is now nearly 22 per cent higher than in May, 1933. Included in this list are copper pipe and wire, journal bearings, pig lead, pig tin and pig copper, the cost of which, compared with 1933, is one-third greater. Leather, rubber belting, boiler lagging and unmounted air brake hose, he said, costs approximately 27 per cent more than four years ago, while the cost of freight car paint, acetylene, oxygen, creosote oil and certain other similar commodities is nearly 23 per cent higher.

While the volume of freight traffic and the resulting revenues have shown an improvement in 1936, Dr. Parmelee said, they are still considerably below those of 1930, the first year of the depression. The net railway operating income of the Class I railways in 1935, he testified, amounted to $499,819,118, which was a return of only 1.93 per cent. The same railroads in 1934 had a net railway operating income of $462,652,379, or a return of 1.78 per cent. In the first eleven months of 1936, it amounted to $597,012,442, which was at the annual rate of return of 2.45 per cent. Class I railroads in 1930, however, had a net railway operating income of $868,878,773, or a return of 3.27 per cent on their property investment.

Dr. Parmelee also testified that the movement of commodities was not held back by the application of the emergency freight charges. This was shown, he said, by the fact that the tonnage of products of agriculture, livestock and forest products, to which the emergency charges in general did *not* apply, increased 19.5 per cent in the first nine months of 1936 compared with the same period in 1935, while the tonnage of products of mines, manufactures and miscellaneous freight, and less than carload freight, to which the emergency charges did apply, increased 20.3 per cent compared with the same period in 1935. Dr. Parmelee said that in the third quarter of 1936 the tonnage of agricultural and forest products increased 18.1 per cent above the corresponding period in 1935, while the products of mines, manufactures and miscellaneous and less than carload freight showed an increase of 30.8 per cent.

The commission on December 30 refused to suspend tariffs filed by the southern railroads and steamships serving southern ports, proposing increases in a large list of commodities on which rates had been reduced to meet water competition to become effective on December 31. The increases were generally equivalent approximately to the amount of the emergency charges but the rates as increased were below the level of those prescribed by the commission in specific cases in which it had prescribed reasonable maxima.

Sweden's first Diesel road locomotive will soon be placed in regular passenger service, according to a recent statement from the American-Swedish New Exchange, Inc., New York. Diesel switchers and rail motor cars have heretofore been in use on Swedish railroads, the announcement says, but adds that the new Diesel road locomotive is the first of this type to be assigned to passenger service. The locomotive has a 500-hp. Diesel engine and electric transmission. Its maximum speed is said to be 100 kilometers per hour.

Is Truck Regulation a Failure?*

Regulation overlooks real issue, which is the subsidy—If this were removed, regulation might be unnecessary

By S. W. Fairweather

Director, Bureau of Economics, C. N. R.

THE commercial motor vehicle has brought about great changes; it has furnished a new agency for land transport; it has put governments, whether they know it or not, into the transport business on a large scale; it has seriously impaired the delicately adjusted rate structure by means of which the railways were used as instruments of governmental policy to foster the development of the country; it has rudely shattered the established order of things.

Like all new things, it cares nothing for the past and pays no attention to problems of the future. It is wholly concerned with expansion based on day to day conditions. It is admirably adapted to do this because its field of operation is divided between provision of individual vehicles, which involves small capital investment per unit, and the provision of highways for the vehicles to run upon, which involves heavy expenditures by governments. This makes possible the exploitation of the field by a great number of entrepreneurs and is the explanation of why there are literally thousands of trucking concerns. It also explains how the governments come to be in the transport business in a large way. How successful the government business ventures in highway transport will be depends on many factors.

We have, then, the railways and truck-highway method of land transport engaged in competition. Competition is a common experience of all business. Success in the long run goes to him who can produce what the public wants, meet his expenses, and undersell his competitor for an equivalent article. This is the inexorable law of economics. Constant change is the price we pay for progress and if, in the new competitive conditions, the railways cannot justify their existence, they must pay the same penalty as any other unsuccessful enterprise. I hasten to add that railways are quite capable of adjusting themselves to the new conditions if there is a fair field and no favor. No agency, which on the average can transport freight at a cost of less than one cent per ton per mile need have great fear of a competitive agency whose average economic cost for transportation per ton per mile is nearly five cents. In the adjustment to changed conditions, however, many things other than those solely applicable to railways, will be affected, and our ideas regarding railways and their functions will need substantial modification.

What is implied in the phrase "a fair field and no favor"? To explain my views of this one must go back in history to a time when the railway was the only known agency of land transport. During that period the development and operation of railways was a lucrative opportunity for capital, and the so-called "railway barons" came into existence. It rapidly became apparent that a railway held the destiny of the territory it served, so to speak, in the hollow of its hand—the power for good or evil was too great to be left in the hands of a few individuals. Too many instances of discrimination between industries and between communities and too many instances of excessive charges for services occurred to leave any doubt in the matter; therefore railways were regulated in the public interest.

By a gradual process it was discovered that the functional monopoly of the railway and regulation of rates and services afforded a highly satisfactory method of accomplishing ends which otherwise could only be accomplished by direct government action. I have in mind such things as the equalization of rates to markets over wide areas; the development of new territories and the encouragement of basic industries by freight rates lower than commercially justifiable, and the placing of a responsibility upon the railway to maintain regular services, even in cases where there was no profit in doing so. The general principle was enunciated that the railway must take the rough with the smooth, the lean with the fat; and if it cost millions of dollars to maintain a railway open during the winter season, the justification for this was that the loss could be recouped from next summer's

Regulation, Without Adequate Taxation, Is No Solution to Problem

Regulation of highway trucking has so far been confined to the externals of the problem, such as the issuance of certificates of convenience and necessity and half-hearted attempts at rate regulation.

This is the type of regulation which any intelligent trucking concern would welcome, because it grants him a little private monopoly and rate regulation, if effective, would furnish him a highly lucrative but artificial field of opportunity. It is not surprising, therefore, to find established trucking concerns vociferous for this form of regulation.

But it fails utterly to cope with the railways' problem of finding sufficient money to carry out their non-profitable social obligations, and this is why in Canada and the United States we see railways turning in desperation to the negative solution of curtailing services and abandoning thin traffic areas.

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* An address before the Maritime Board of Trade at Charlottetown, Prince Edward Island. Although Mr. Fairweather's figures refer to Canada, his conclusions, if valid for the Dominion, would probably apply with equal weight to conditions in the U. S. A.—EDITOR.

business. Frequently also, railways have been called upon to make special concessions in rates to meet temporary distressed conditions. Right at this moment distress freight rates are in effect, both in Canada and the United States, in the drought area of the mid-west.

Therefore, the revenues of a railway, while on the average designed to maintain financial solvency, are in detail nothing more or less than a complicated method of taxing and bonusing various communities and industries, all done with the best of motives and in the national interest. The amounts involved are enormous, but I shall not attempt to detail them because comparisons are odious. A curious example, however, is to be found in the development of good roads. Immediately the policy of good roads was inaugurated, special freight rates were requested on road building materials, and a rough calculation indicates that sub-normal rates reduced the cost of highways by $25,000,000. I think you will admit this situation is a bit ironical.

The railway then has many special burdens which have grown up in the past and which are at the present time taken for granted, but so long as the railway, on the average was able to assess charges to cover the cost, it was a convenient and workable arrangement; now, however, the motor vehicle and highway, acting in combination, have changed all that as follows:

Social Rate Structure Disrupted by Trucks

The highway is provided by the state and at a cost to the motor truck much less than its real cost, as I shall develop later. Vehicles to operate on the highway represent relatively small capital investments, and the industry is so young that the social conventions as to rates of wages, hours of labor and working conditions are still in a chaotic state and produce a low price level. Then due to the artificial rate structure which I have described, an artificial opportunity is afforded the trucker to avoid the bulky and low valued commodities, which the railway in some cases carries at a charge less than one-half cent per ton per mile, and to concentrate on the high grade commodities where the charge for transportation by the railway may be from ten to fifteen cents per ton per mile. The trucker also has no obligation to maintain a service which is unremunerative or seasonal in nature, and when snow and ice obstruct the highway he cannot operate unless a benevolent government keeps the highways open for him, which in most of Canada would be a very expensive procedure.

The damage to the railway's position has reached considerable proportions. Of course, all trucking is not competitive with the railway and we must not be led into the error of making estimates based upon any except "over-the-road" trucking, by which is meant point to point trucking competitive with the railway. The estimated tonnage of "over-the-road" trucking in Canada, measured in tons carried one mile, is insignificant as compared with the total by the railway. The figures are 27,000 million for the railway and 400 million for the truck. The figures for the highway are a rough approximation, because there are no accurate statistics available. When we come to gross revenues, the situation is that the railway gross freight revenues have been reduced 38 million dollars per annum either through traffic lost to the trucks or through rate reductions necessary to hold the traffic to the rails. We might estimate that since the average rail operating ratio is 85 per cent the damage to the net position of the railways would be only $5,700,000, but in drawing such a conclusion one would ignore the "pick and choose" method of truck operations. The damage to the net position of the railways is, in fact, approximately $34 millions. This, you will see, is so substantial as to seriously impair the ability of the railways to act as fairy godmothers to communities and industries.

Truck Regulation of Doubtful Value

I have expressed conviction that the railway could carry on on the basis of "a fair field and no favor," but how is that condition to be established? An obvious but superficial answer is to subject trucks to the same type and form of regulation as has proved satisfactory in dealing with railways. The problem is not peculiar to Canada and, generally speaking, this is the method which has been tried in other countries. I must confess that so far as being of any assistance to the railways is concerned, it has not proved successful because this solution has never been logically thought out and applied. Regulation of highway trucking has so far been confined to the externals of the problem, such as the issuance of certificates of public convenience and necessity and half-hearted attempts at rate regulation based, in all instances, on the maintenance of existing rail rates. This type of regulation is the type which any intelligent trucking concern would welcome, because in the first place it grants him a little private monopoly which is enforced by the state, and in the second place rate control at railway rate levels, if effective, would furnish him a highly lucrative but artificial field of opportunity for the reasons I have already mentioned.

It is not surprising, therefore, to find established trucking concerns vociferous for this form of regulation. It fails utterly to cope with the railways' problem of finding sufficient money to carry out its non-profitable social obligations,

Adequate Road Use Fees, Not Regulation, The Logical First Step

The state and provincial governments are in the highway transport business in a big way. They are selling the use of the highways to operators through the medium of licenses and taxation. The basis of this sale of highway use is not a sound one and, except in the hands of government, would quickly lead to bankruptcy.

The commercial motor vehicle is being bonused by the pleasure automobile at present tax levels, and both are being bonused by the future taxpayers as regards true highway costs.

It is unreasonable for individuals to have a claim upon the public treasury to provide facilities for their use without paying something more than bare-bones cost of providing highway facilities for commercial use, yet the commercial users are not now even paying that.

Charging something more than the bare-bones cost ought to be the *first* step in any rational program for dealing with highway transportation. Only after that does the question of regulation logically arise.

and this is why in Canada and the United States we see railways turning in desperation to the negative solution of curtailing services and abandoning thin traffic areas which are serviced by good roads. Under present conditions the railways have no alternative, but it is my opinion that in most cases the damage to the community through the loss of railway service far exceeds the summation of the individual benefits which accrue to these individuals from highway operation.

No form of regulation of motor truck transport, which leaves on the railway the responsibility to maintain unproductive services or to maintain sub-normal rates on basic commodities, and at the same time exposes them to highway competition for high valued traffic, can ever be successful. Regulation, if earnestly approached, must take the whole problem into consideration.

Let us turn now to the various economic factors that need to be considered. I have already stated that the provincial governments are in the highway transport business in a big way. What do I mean by that? Simply that they are providing highways for commercial truck operations in competition with the railways and selling the use of the highways to operators through the medium of licenses and taxation. It may be a perfectly sound business proposition, but I wish to emphasize that if it is a sound business proposition it should be kept on a business basis. I shall attempt to establish the fact that the basis upon which the use of the highways is being sold is not a sound one and, except in the hands of a government, would quickly lead to bankruptcy.

Truck Transport Not a "By-Product"

The use of the highway by the commercial motor vehicle is being sold on a by-product basis, the theory being that good highways have to be built for passenger vehicles, and having been so built and certain excess capacity being available, it is good business for the province to increase the use of the commercial highway vehicle in order to distribute the cost of the highway over a greater number of users. It is quite obvious that if any considerable portion of the cost of a highway were assessed directly against the trucker, his field of activity would be reduced. It is only because he is assessed on a by-product basis that he is able to get by and operate in selective competition with the railway for distances of hundreds of miles.

Expenditures on Highway Account

Province	Maintenance	Capital	Interest on Debt	Sinking Fund	Total
P.E.I.	$334,327	$226,863	$60,125	$25,875	$647,190
N.S.	1,854,765	1,293,410	1,120,679	67,618	4,336,472
N.B.	1,025,320	1,226,990	2,027,000	134,925	4,414,235
Totals	$3,214,412	$2,747,263	$3,207,804	$228,418	$9,397,897

Revenues from Motor Vehicles

Province	License Tax	Gas Tax	Total
P.E.I.	$101,228	$174,485	$275,713
N.S.	1,014,075	1,303,046	2,317,121
N.B.	772,714	852,199	1,624,913
Totals	$1,888,017	$2,329,730	$4,217,747

There is an impression in some quarters, and it may be widespread, that the total taxes collected from motor vehicles are more than sufficient to pay the highway bill. How true is this statement? It has only the appearance of truth for the only highway costs which are taken into account in such a statement are the so-called maintenance costs incurred directly by the provincial authorities. As a matter of fact, if one digs below the surface and discloses the total costs of the highways, not one-half of the present yearly costs in the Maritime provinces are being borne by the motor vehicle; the difference is being borne by taxation at large or is being funded and in that manner passed on to the future. I have prepared a statement showing this for the year 1934 for the Maritime provinces. It is based on the Dominion Bureau of Statistics' Highway and Motor Vehicle publication, and is shown in the accompanying tables.

I venture to say that if figures were available for the year 1935 the discrepancy between motor vehicle taxation and total expenditures would not be less than eleven millions of dollars, because in that year the Maritime provinces instituted the hard surface program.

Motor Traffic Subsidized

But the critical may say, "It is not fair to charge against the present the total cost of hard surfaced roads or other capital improvements. These items should properly be funded and distributed over their "useful life." I freely admit it! But in admitting the principle, it is necessary to set up interest and sinking fund provisions on all capital improvements, not only those being currently made but also those that have been made since the good roads program was started. If you tackle it from that angle, the following results:

Province	Annual Amount Necessary to Perpetuate Highway	Interest on Highway Investment at 5%	Total Annual Cost
P.E.I.	$349,800	$238,117	$587,917
N.S.	3,293,000	3,076,471	6,369,471
N.B.	4,063,000	2,515,444	6.578,444
Totals	$7,705,800	$5,830,032	$13,535,832

So you will see, whether one approaches the program from the angle of "pay as you go" principle or on the sinking fund principle, the same general conclusion is reached that the motor vehicle is not paying the total cost of the highways.

But this is not all the story, because not only is the total bill not being paid, but even the portion collected is being collected unevenly. If roads are to be made safe for motor trucks and pleasure automobiles, as compared with being made safe for pleasure automobiles alone, additional costs must be incurred, and this additional cost should be a charge against the motor truck. There has been a great deal of argument as to what additional costs of construction and maintenance of highways are caused by super-imposing motor truck use upon pleasure automobile use. The estimates vary widely from as little as 5 per cent to over 50 per cent. Twenty per cent might be considered a fair average, although it is my personal view that it is an under-estimate, when applied to gravel and thin surfaced bituminous highways such as are in use in the Maritime provinces. However, let us adopt 20 per cent for the moment, and take it in conjunction with the use of the highway and see what happens. Taxation is most equitably distributed on a use basis, and about as good a factor of use as any other is the gross ton mile. Working this out on the by-product basis, and assessing only 20 per cent of the highway costs as directly applicable to the motor truck, the following results:

Total Cost of Highways 1934	$9.400.000
Cost attributable to motor trucks—20%	1,900.000
Cost to be pro-rated over all vehicles	$7,500,000

Gross ton miles ratio of passenger to all vehicles is 60 per cent. The allocation of the 1934 costs should be as follows:

Passenger vehicles	$4.500.000
Trucks	4.900.000
Trucks actually paid	1.700.000
Deficiency from trucks	3,200.000

You will see from this table that if commercial motor vehicles were taxed equitably on a by-product basis and

no attempt made to increase the present tax levy, taxation on motor trucks should average double the present levy, and if the tax is raised to cover true costs, it should be quadrupled. The inference is that the commercial motor vehicle is being bonused by the pleasure automobile at present tax levels, and both are being bonused by the future taxpayers as regards true highway costs.

As a start then to a "fair field and no favor," the tax on commercial motor vehicles would have to be greatly increased and this without any element of profit to the state. It is unreasonable, however, to expect individuals to have a claim upon the public treasury to provide facilities for their use without paying something more than bare-bones cost. As a second step towards "a fair field and no favor," the state should make a charge over and above the bare-bones cost of providing highway facilities for commercial use. Having done so, the state would then be free to explore the possibilities of regulation of services and competition upon the highways, and here there is wide scope for differences of opinion.

With Adequate Road Use Fees, Regulation Might Prove Unnecessary

One might advocate complete laissez faire or go as you please, so long as the user of the highway paid equitably for the highway and used it so as not to endanger the property of others. If this idea were followed, it would be in conformity with general merchandising economics. My personal inclination is towards this view because of the grave difficulties I see in attempting to control such a mobile activity as the motor truck which, at one and the same time, may be a common carrier, contract carrier and private carrier. On the other hand, the state might plunge into the intricacies of regulation based upon certificates of convenience and necessity, with obligation to perform scheduled services and with a standard classification of rates and rigid control of them. These are the two extremes.

Whichever form is adopted, it must be the same for both railways and motor vehicles, if it is to comply with my definition of "a fair field and no favor." By this I mean that *if the idea of a social obligation on the part of the railway to furnish unremunerative essential services is to be retained, it must also be taken into account in the case of the motor vehicle.* It should not be possible for the latter to exploit the field of commercial opportunity selectively. This is an aspect of regulation which so far has not been taken into account. *It is plainly uneconomical to maintain duplicate facilities for unremunerative essential services and, therefore, what is indicated is that the facility which can perform these unremunerative services the cheapest should be selected, whether it be the highway and motor truck or the railway.* The agency selected should then either be given the fat with the lean, or alternatively the state might provide for the lean by contract and direct subsidy of the chosen facility, meeting the cost as part of the general tax burden.

I will bring this home to you by a typical example. Last winter the Canadian National spent $70,000 in maintaining service on a certain branch line in the Maritimes. Over $35,000 was spent in clearing snow and ice. The total revenue from that branch line during the winter months did not exceed the cost of snow removal alone, to say nothing of the provision of train service. Yet this branch line is subjected to highway competition for over two-thirds of the year. Railways obviously cannot continue to carry on indefinitely under such conditions and yet we must all realize that the communities served by this branch line, equally with communities which are served by the main line, are entitled to all-year transportation. It is likewise true that the cost of providing such service cannot be borne by the local communities. What would the trucker's rates be if he had placed upon him the obligation to maintain service in the winter time to say nothing of the other forms of social obligation to which I have already referred?

Greater Supervision for Safety

Another feature of "a fair field and no favor" is adequate regulation for public safety. The railways spend a great deal of money every year in keeping equipment and roadbed in a condition for safe operation. For the same purpose careful selection and supervision of employees is practiced. These measures have made railway transportation much safer than other forms of industry and immeasurably safer than motor trucks. We are apt to take this safety for granted, but its preservation requires large expenditures and careful supervision and regulation. The appalling loss of life and property from accidents on the highway caused by defective motor trucks or by man failure is sufficient justification in itself for close supervision and regulation without any consideration of equality of competitive conditions.

I will not deal extensively with the remaining aspect of "a fair field and no favor," namely, equality of rates of pay and working conditions as between railway men and truck operators. It is well known that at the present time many truck employees work for sub-standard wages. I desire to emphasize the important bearing this has upon the immediate situation, but I view such a condition as temporary and as one arising out of the depression. It will be self-corrective as soon as general business furnishes other more attractive markets for labor. One may also anticipate along with the stabilization of the trucking industry, a growth of employees' unions which will ensure reasonable compensation and working conditions.

Once "a fair field and no favor" is established, competition between the railway and the motor truck would soon settle which was the more economical facility for each type of traffic. It might prove in some cases that railways could be torn up and the motor truck on the highway provide continuous all-weather and all-commodity freight service on a cheaper basis. It might be that the field of the motor truck would be found as an auxiliary and that the two in combination can produce a cheaper form of transportation than that at present. By this I mean that the railway, acting in conjunction with the motor truck, could furnish complete transportation to the public without duplication of facilities. I envisage the idea that the railway station instead of being a local point, at which the railway service begins and ends, should, so to speak, be placed on wheels, affording the benefits of reliable transportation of the same high standard of quality to the farmer, lumberman and merchant—in fact, to anyone requiring freight transportation.

Existing Conditions Are Unsound

It is quite possible that the cost of such a complete transportation service by one agency might be less than the cost under the present system of station-to-station service, plus the independent haul at each end. I see this as being possible without the necessity of setting up a monopoly of over-the-road trucking, such as has been tried in some countries—Germany, for instance, where in order to protect the railways there is a rigid licensing of over-the-road trucking, or in South Africa, where trucking over the highway is almost a government monopoly.

As a first step, however, to intelligent development,

it is necessary that the whole problem of railway and motor truck competition be dealt with in such a manner that the basic economic factors are recognized so that freedom of opportunity and justice may be accorded both. The uncertainty which exists with regard to policies of regulation, taxation and administration for motor trucks on the highways, and the knowledge that for the most part existing conditions are not based on sound economic grounds, is the greatest handicap to the railways in making needed adjustments.

In the present amorphous state of regulation and control in the nine provinces, and with the obligation still remaining on them to perform many thankless tasks, the railways are dealing with so many unknown factors as to preclude any except a policy of day-to-day expediency, directed towards the conservation of as large a net revenue as can be obtained. It is one thing for a private individual to venture a thousand dollars investment in a truck without knowledge of anything except a local condition and quite another to deal with the large amount of money involved in the railways' approach to the co-ordination of railway and motor truck transport. It would be folly on the part of the railways to go very far along that line until the governments concerned have placed their highway house in order, and there can be some definiteness in planning a constructive policy.

Commerce Body Hits "Make Work" Bills

(*Continued from page 112*)

one industry for the application of an idea which, if applied to industry and trade generally, or to government operations such as those of the postal service, would create economic problems of the utmost seriousness.

Although men in service on trains constitute less than 15 per cent of railroad employees, much of the argument for the six-hour day has been with reference to them, it being claimed that the bill would increase the number employed. However, it does not appear that there would be much effect in this direction. In the case of fast runs now requiring six hours or less, for which wages are on a mileage basis, neither the compensation nor the number of employees would be affected. However, ordinary freight runs, which make up the bulk of railway service and are handled at low speeds as is necessary for economy in the movement of the huge volume of low-grade commodities, generally require approximately the full eight hours under normal conditions. These runs are determined largely by the location of division terminals with their engine houses, yards, housing accommodations and other facilities. Rather than face the prohibitive cost of replacing them at shorter intervals the railroads in most cases would have to continue the present operating runs. Consequently, if a six-hour day were adopted as the pay basis in place of the present eight-hour day, practically all employees on these runs would be paid on a time basis. Not only would the hourly rate be increased by one-third, but there would be further increases on account of the punitive one-and-a-half overtime rate for the time over six hours necessary to complete the operating runs.

Thus the six-hour day as applied to employees in service on trains would mainly have the effect of legislatively increasing the compensation of a large number of men already in the upper income levels of railroad labor.

Limiting Train Lengths

The train-length proposal would prohibit freight or mixed trains of more than 70 cars, or more than half a mile long, and passenger trains of more than 14 cars. Many roads, particularly those with large traffic in coal and other raw materials which cannot stand high freight rates, regularly and safely operate considerably longer freight trains. Passenger trains of 18 cars and express and milk trains of 26 cars are now frequently and safely operated.

In brief this proposal is one which would increase employment in train service by a radical sacrifice in the efficiency of railroad transportation and which from the safety viewpoint, all factors being taken into account, would apparently be more harmful than helpful.

Full Crew Proposal

The full-crew proposal would require two men on every locomotive or other power unit, even in the case of gasoline cars and electric suburban trains; in addition, a conductor on every locomotive or gasoline car running alone on the line; a brakeman, in addition to a conductor, on the shortest passenger train, and two brakemen on a passenger train of five cars or more, even on a branch or light-traffic line; at least two brakemen as well as a conductor on every freight train, no matter how short; three brakemen on every freight train of 50 or more cars, and every local freight train doing any switching or unloading of freight, irrespective of traffic conditions; and an engineer, a fireman, a conductor and at least two brakemen for every locomotive doing switching in or between yards, regardless of the character or amount of the work to be done.

The effect of this measure would be to increase employment by legislation requiring surplus and unneeded men in many cases.

The employees hold that the full-crew law is needed for safety. Certainly every train and power unit and every switching operation should be adequately manned. It would seem, however, that the proper crew should be carefully determined in each case by the conditions. The railroad position is that this is being done at present and that, in fact, in some instances larger crews than the proposed law would require are now assigned. On the other hand, prescription by law of inflexible numbers for crews without regard for actual needs would result in many instances in employing men with little or nothing to do.

It was estimated at the hearings that the full-crew bill would add $70,000,000 annually to operating expenses on the basis of 1934 traffic. The sum would probably be more than $100,000,000 on the normal traffic basis.

Taken together the three bills discussed would impose added costs upon the railroads of approximately $900,000,000 a year, or more than the entire net income of the railroads for even the most prosperous of the predepression years.

In addition to the foregoing bills, there has also been proposed an amendment to the existing hours of service law. Instead of allowing a maximum limit of sixteen hours within which an employee's service must be performed under emergency conditions, this bill would reduce that period to twelve hours, a mandatory limit too short to permit railroad crews to carry through their assignments in case of emergencies. The extra cost resulting from the bill would be substantial, and it does not seem to be justified from the viewpoint of safety and welfare of employees.

Other bills, for inspection of track and signals by government officials, offer proposals involving unnecessary and costly duplication of effort and personnel. No need for this from the safety viewpoint has been shown, and in the absence of such showing there should be no interference with the responsibility of managements for these particular elements of railroad operation.

By An Order Which Took Effect January 1, the Public Service Commission of New York has ordered all railroads to have a competent trainman or other qualified employee at highway crossings which are protected by automatic flashing signals, to direct street traffic when these signals continue indications adverse to street traffic for more than five minutes, as in the case of standing freight trains or switching operations of such character that highway users cannot readily inform themselves what conditions are to be expected.

NEWS

Meet With Labor on Pension Plans

Committees of A.A.R. and R. L.E.A. confer at the President's request

At the request of President Roosevelt committees representing the Association of American Railroads and the Railway Labor Executives' Association have arranged for a conference at Washington on Thursday, January 7, in an effort to reach a satisfactory understanding as to a plan for a retirement annuity system for railroad employees. The tax law on which the present railroad retirement act depends is still in the courts and expires on February 28 and if it should be set aside by the courts the railroads would become subject to the old-age pension provisions of the social security law while their older employees would still be dependent upon the railroads' own pension plans.

In letters addressed on December 28 to J. J. Pelley, president of the railroad association, and George M. Harrison, chairman of the Railway Labor Executives' Association, which have been made public since at the White House, President Roosevelt pointed out that for several years the establishment and operation of a system of retirement annuities has been under consideration by the railroads and their employees but, because the legislation undertaken for the purpose has been involved in litigation, efforts to resolve the issue through mutual discussion have been postponed. "The railroads and their employees have shown great aptitude," he said, "in the co-operative solution of their problems. I sincerely hope that the retirement annuity problem can be resolved in the same manner. I therefore urge upon you the desirability of a conference between representatives of the railroads and of the railroad employees to consider the retirement problem and attempt to find a satisfactory solution."

He added that the taxes under the law expire on February 28 and that further consideration of the whole subject by Congress will be necessary early in the session and that he had suggested a conference in order that Congress might have the benefit of joint recommendations. He also said that the Railroad Retirement Board had collected a wealth of information bearing on the problem and has in its possession all the relevant records compiled by the Federal Co-ordinator of Transportation. He had therefore requested the board to offer assistance in arranging for a conference, to make its information available, and to render whatever aid it can to the conferees.

Mr. Pelley and Mr. Harrison replied on December 29 and 30 thanking the President for his interest in the matter and stating that arrangements were being made for a conference about the middle of January. Mr. Pelley said that full and thorough consideration would be given the suggestions and Mr. Harrison said that "it will be our purpose to exert every effort in the direction of reaching a satisfactory understanding."

The Railroad Retirement Board has now certified to the Treasury the names of some 2,000 retired employees for the payment of pensions from government funds.

Six-Hour Day Proposal Rejected in Britain

Press reports from London this week stated that the Railway Staff National Tribunal had rejected the claim of the Associated Society of Locomotive Engineers and Firemen for a six-hour day and 36-hr. week for enginemen, firemen and engine cleaners employed on British railroads. The tribunal, headed by Sir Arthur Salter, concluded its hearings on the union's proposals on December 18. It was stated at the hearings that a six-hour day for locomotive workers would add £6,000,000 to the railroads' annual wage bill—and the application of such a working schedule to all employees would add "well over £30,000,000."

I. C. C. Declines to Re-open Pick-Up and Delivery Case

The Interstate Commerce Commission has denied petitions filed by the railroads in Illinois Freight Association territory and by the Chicago Association of Commerce for a re-opening, rehearing, and enlargement of the scope of the proceedings in the eastern pick-up and delivery case.

Keeshin Lease Approved

The Interstate Commerce Commission, Division 5, has authorized the Keeshin Motor Express Company, Inc. of Illinois to lease the property and operating rights of Keeshin Motor Express, Inc. of Indiana, Keeshin Motor Express Company, Inc. of New York, Bernd Trux, Inc., Dickens Motor Freight, Inc., and Scott Transportation Company.

Santa Fe to Launch Coach Tourist Train

Will transform Scout on January 10—Chief to be speeded up

The Atchison, Topeka & Santa Fe, on January 10, will transform its Scout to an all coach and tourist Pullman train, with low cost meals and will place its Chief on a schedule of 50¾ hours westbound and 49 hours eastbound, a reduction of three-quarters of an hour and 1 hr. 25 min., respectively. The new Scout will feature Fred Harvey dining cars on which passengers can obtain three meals daily for 90 cents, with breakfast starting at 25 cents, luncheons at 30 cents and dinners at 35 cents. The train will carry air-conditioned smoker and chair cars, with porter service and free pillows provided, air-conditioned tourist Pullmans, and a diner. The Scout's westbound time between Chicago and Los Angeles will be cut 40 min., or to 60¼ hr., and its eastbound schedule 10 min., or to 58 hr. 35 min. Between Chicago and Kansas City, it will carry first class Pullmans, also. The chair cars will be remodeled, with new chairs, large dressing rooms for women, and men's rooms.

The Chief will be placed on a westbound schedule of 50¾ hr., a reduction of three-quarters of an hour and an eastbound schedule of 49 hr., a reduction of 1 hr. 25 min. The train will leave Chicago at 12:01 p.m. as at present and will arrive in Los Angeles at 12:45 p.m., instead of 1:30 p.m., while returning it will leave Los Angeles at 10:30 a.m., instead of 9:30 a.m., and will arrive in Chicago at 1:30 p.m., instead of 1:55 p.m.

The California Limited will be speeded up 45 minutes westbound. The train will leave Chicago at 9:45 p.m. instead of 9:15 p.m., and will arrive in Los Angeles at 8:00 a.m. instead of 8:15 a.m.

Air Express in November

Gross revenue from air express shipments handled in November, 1936, by the Air Express division of the Railway Express Agency exceeded by 99 per cent the gross reported by the contract air lines for the same month in 1935. This was revealed in a recent statement from the Railway Express Agency which also reported that all one-day records for air express shipments into and out of New York were broken on December 22, 1936, when 1,973 packages were handled.

Return of 2.45 Per Cent in 11 Months

Rate for January-November, 1936, compares with 1.85 per cent in 1935

Class I railroads in the first eleven months of 1936 had a net railway operating income of $597,012,442, which was at the annual rate of return of 2.45 per cent on their property investment, according to reports compiled by the Bureau of Railway Economics of the Association of American Railroads. This is an increase of 32.4 per cent as compared with the first eleven months of 1935, when the net railway operating income was $450,880,560 or 1.85 per cent. In the first eleven months of 1930, the net railway operating income was $820,214,052 or 3.38 per cent.

Operating revenues for the first eleven months of 1936 totaled $3,680,469,173, compared with $3,154,159,464 for the same period in 1935, and $4,906,580,018 for the same period in 1930, an increase of 16.7 per cent in 1936 above 1935, but 25 per cent below 1930. Operating expenses for the eleven months amounted to $2,674,033,559, compared with $2,368,566,462 for the same period in 1935, and $3,636,468,116 for the same period in 1930. Operating expenses for the first eleven months of 1936 were 12.9 per cent greater than in the same period of 1935, but 26.5 per cent below 1930.

Class I railroads in the first eleven months of 1936 paid $286,546,108 in taxes compared with $222,233,765 in the same period in 1935, and $328,645,340 in the same period in 1930. For the month of November alone, the tax bill amounted to $26,495,242, an increase of $8,442,558 or 46.8 per cent above November, 1935.

Twenty Class I railroads failed to earn expenses and taxes in the first eleven months of 1936, of which eight were in the Eastern district, three in the Southern district and nine in the Western district.

Class I railroads for November had a net railway operating income of $72,410,571, at the rate of 3.4 per cent. In November, 1935, their net was $54,224,290, or 2.54 per cent, and in November, 1930, it was $61,175,416, or 2.88 per cent return. Operating revenues for November amounted to $358,547,561, compared with $301,341,243 in November, 1935, and $394,261,533 in November, 1930. Operating expenses in November totaled $248,285,121, compared with $218,651,481 in the same months in 1935, and $295,812,115 in November, 1930.

Class I railroads in the Eastern district for eleven months had a net of $350,141,094, at the rate of 3.08 per cent. For the same period in 1935, their net was $279,469,256, or 2.46 per cent. Operating revenues in the Eastern district for eleven months totaled $1,854,977,929, an increase of 16.2 per cent compared with 1935. Operating expenses totaled $1,301,333,086, an increase of 13.1 per cent above the same period in 1935. Railroads in the Eastern district for November had a net of $39,554,659, compared with $30,688,941 in November, 1935, and $28,102,384 in November, 1930.

Class I railroads in the Southern district for eleven months had a net of $71,492,005, at the annual rate of 2.46 per cent. For the same period in 1935, their net amounted to $48,183,288, at the rate of 1.64 per cent. Operating revenues in the Southern district for eleven months amounted to $453,751,913, an increase of 15.7 per cent compared with the same period in 1935. Operating expenses totaled $338,099,132, an increase of 9.5 per cent above the same period in 1935. Class I railroads in the Southern District for November had a net of $9,152,468, compared with $5,390,059 in November, 1935, and $6,472,898 in November, 1930.

Class I railroads in the Western district for eleven months had a net of $175,379,343, at the rate of 1.75 per cent. For the same eleven months in 1935, the railroads in that district had a net of $123,228,016, at the rate of 1.22 per cent. Operating revenues in the Western district for eleven months amounted to $1,371,739,331, an increase of 17.7 per cent above the same period in 1935. Operating expenses totaled $1,034,601,341, an increase of 13.8 per cent. For November the railroads in the Western district reported a net of $23,703,444, compared with $18,145,290 for the same roads in November, 1935, and $26,600,134 in November, 1930.

CLASS I RAILROADS—UNITED STATES

	1936	1935	1930
Month of November			
Total operating revenues	$358,547,561	$301,341,243	$394,261,533
Total operating expenses	248,285,121	218,651,481	295,812,115
Taxes	26,495,242	18,052,684	25,418,475
Net railway operating income	72,410,571	54,224,290	61,175,416
Operating ratio—per cent	69.25	72.56	75.03
Rate of return on property investment—per cent.	3.40	2.54	2.88
Eleven Months Ended November 30			
Total operating revenues	$3,680,469,173	$3,154,159,464	$4,906,580,018
Total operating expenses	2,674,033,559	2,368,566,462	3,636,468,116
Taxes	286,546,108	222,233,765	328,645,340
Net railway operating income	597,012,442	450,880,560	820,214,052
Operating ratio—per cent	72.65	75.09	74.11
Rate of return on property investment—per cent.	2.45	1.85	3.38

Santa Fe Pick-Up and Delivery Tariff Suspended

The Interstate Commerce Commission has suspended from January 1 until August 1 the operation of schedules published by the Atchison, Topeka & Santa Fe proposing to revise class and commodity rates, which include pick-up and delivery service, and also to establish new rates, including such service, between points in California, Arizona, New Mexico and Texas, to meet motor-truck competition.

Many R.R. Bills in 75th Congress

Proposals expected again to arouse controversy are reintroduced

As the first session of the Seventy-Fifth Congress opened on January 5 many of the railroad bills that are expected to arouse controversy during the session were reintroduced in the form in which they had been presented in previous sessions and several new ones were expected.

The bill to repeal the long-and-short-haul clause of the interstate commerce act, which was passed by the House at the last session but not by the Senate, was reintroduced by Representative Pettengill of Indiana as H. R. 1668.

The full-crew and train-limit bills proposed by the railroad labor organizations were reintroduced by Representative Griswold, the signal inspection and train dispatching bills by Representative Crosser, and the track inspection bill by Representative Mapes, but it was understood that the six-hour day bill was to be redrafted. The Railway Labor Executives' Association was meeting in Washington on Wednesday to perfect its legislative program.

A bill "to render traveling by sightless persons safer and more convenient by entitling them to be accompanied by 'seeing-eye' dogs on interstate transportation facilities without additional cost" (to the traveler) was introduced by Representative Smith, of Washington, and Representative Dirksen had a bill to prohibit reduction of freight rates from rail-shipment points on account of indirect water competition.

The Senate committee on interstate commerce will continue under the chairmanship of Senator Wheeler of Montana, who has already begun his activities with a series of hearings in connection with the investigation of railroad finance, but the hearing set for January 6 was postponed. Representative Samuel Rayburn, of Texas, who has been chairman of the House commitee on interstate commerce for many years, has been elected majority leader of the House, which means that he will be succeeded as chairman of the committee by Representative Clarence F. Lea, of California. Few changes were expected in the membership of the House committee but the Senate commitee had three vacancies because three Republican members were not re-elected.

The President did not discuss the railroad situation in his message to Congress.

Labor Leader Dies

Edmund K. Hogan, first vice-president of the Brotherhood of Railway Carmen, died in Chicago, on December 31, of a strepticocci infection of the throat. Mr. Hogan had been a labor leader for many years, and in addition to his office with the Railway Brotherhood, was a member of the Executive Board of the Chicago Federation of Labor; director of its speakers bureau; and correspondent in Chicago for Labor.

Bus Transportation in United States

Report shows 1,751 common carriers with 1935 gross of $167,933,000

The sum of $167,933,000 was received in 1935 by 1,751 common carrier motor bus transportation concerns, according to a statement by William L. Austin, director of the Bureau of the Census. The 1,751 concerns employed a total of 39,613 persons (monthly average) with an annual pay roll of $55,267,000. The number of vehicles in operation by these concerns in October, 1935, amounted to 19,182. The month of October was chosen as representative for the year. Stand-by equipment was not included in the count of vehicles.

The Middle Atlantic region led all other regions in both the number of bus companies and the amount of revenue. The 506 concerns located in the three Middle Atlantic States received $46,109,000, or slightly more than one-fourth the total revenue reported by the 1,751 companies. Regional data, however, apply only to bus concerns whose headquarters are located in such areas, but they cover the entire business of such concerns whether local, regional, or national in scope.

The motor bus transportation census is limited to those companies or unincorporated firms which maintained a recognizable place of business and were engaged primarily in the operation of regular common carrier buses. The census is limited further by excluding bus lines operated by municipalities, by electric railway companies or their subsidiaries, and directly by steam railroads. Some bus business is carried on by concerns engaged primarily in trucking and will be reported in the census of motor trucking for hire.

Analysis of data for the 1,751 motor bus carriers summarized shows that the 251 concerns engaged primarily in interstate business received slightly more than 47 per cent of total 1935 revenue. These same companies employed an average of 15,847 persons with a total pay roll of $22,580,000 in 1935. These 15,847 persons represented 40 per cent of total employees and their wages and salaries about 41 per cent of the total annual pay roll.

Interstate operators received the highest average revenue per vehicle. Averages for each group were: for interstate, $13,622; intrastate, $6,606; and local, $6,576. In a later report the average revenue per vehicle will be related to passenger capacity. Such data will provide some measure of equipment utilization.

The number of bus concerns with large annual revenue was relatively small, but they accounted for most of the receipts. Only 15.4 per cent (269) of the total number of concerns received $100,000 or more per year. This small number, however, accounted for 83.3 per cent of all revenue. They employed 78.9 per cent of all paid employees; paid out 82.9 per cent of the annual pay roll; and operated 66.8 per cent of the vehicles.

There were 66 concerns, or 3.8 per cent of the total number, that received one-half million dollars or more in 1935. The total revenue of these concerns amounted to $97,356,000 or 58.0 per cent of all revenue. These same companies employed 53.4 per cent of all paid employees; paid out 57.5 per cent of the annual pay roll; sustained 56.6 per cent of other operating expenses (not including depreciation), and operated 37.9 per cent of all vehicles.

This report summarizes only part of the information collected on the motor bus transportation business. The complete report, which will be issued in the near future, will show the amount of revenue received from different sources; monthly employment figures; employment data for one week, showing the number and compensation of employees by different occupational groups (executives, clerical, drivers, maintenance employees, others), and a detailed inventory of equipment showing capacity and age.

Brotherhoods Ask Dismissal of Power Reverse Gear Complaint

The Brotherhood of Locomotive Engineers and the Brotherhood of Locomotive Firemen and Enginemen have asked the Interstate Commerce Commission to dismiss the proceedings on their complaint in which they had asked the commission to require the equipment of locomotives with power reverse gear, because of the agreement reached with the railroads last summer.

Foundation for Research in Field of Arc Welding

To encourage study and research in the field of arc welding, the Lincoln Electric Company, Cleveland, Ohio, has completed plans for establishing what is known as the James F. Lincoln Arc Welding Foundation. The principal direction of the work will be given by Dr. E. E. Dreese, chairman of the department of electrical engineering, Ohio State University. An announcement of the research program will be made at an early date.

Mail Transportation by Rail

On June 30, 1936, mails were carried under authorizations of the Postoffice Department by 383 companies over 197,564 miles of railroads. The annual mileage of regularly authorized space units of the several sizes for carrying mails was 461,948,362, according to the annual report of the Postmaster General.

The appropriation for the fiscal year for inland transportation by railroad routes and mail-messenger service was $102,000,000, which includes a deficiency appropriation of $2,000,000. The expenditures for the fiscal year were as follows: Mail transportation by railroads, $93,991,645; mail-messenger service, $6,875,095; other items chargeable to the appropriation, $788,626; total $101,655,366 (subject to adjustment), an increase of $1,979,755 over those of the preceding year.

On June 30, 1936, there were 20,256 mail-messenger routes, a decrease of 246, or 1.20 per cent. The annual rate was $6,876,265, a decrease of $31,230, or 0.45 per cent in the annual rate.

New Haven Hits Federal Control

Brief attributes road's financial difficulties to the effects of government operation

The effects of government management of its properties during the federal control period, 1918 to 1920, rather than the outside investments of the company, were responsible for the subsequent financial difficulties of the New York, New Haven & Hartford, according to a brief filed by the trustees with the Interstate Commerce Commission this week taking sharp issue with testimony given by the commission's representatives in connection with its investigation of the company's finances.

At this hearing accountants for the commission severely criticised the New Haven for losses from outside investments incurred before 1935. The brief states that "relying upon the promise of the administration that properties would be 'as scrupulously looked after by the government as they could be by the directors of the several railway systems' the New Haven subscribed to the so-called standard agreement. In fact, the New Haven property was not as scrupulously looked after by the Director General as it would have been by its own directors. It was not given the return to which it was entitled under the standard agreement by reason of special conditions relating to additions and betterments and per diem charges. The number of its employees was increased during federal control from 30,000 to 42,000." It is also stated "that this was unnecessary and inefficient is indicated by the fact that after the termination of federal control it was again reduced to about 30,000 although ton-miles and passenger-miles increased. During the three years prior to federal control the New Haven had an operating ratio under 70 per cent. During the first year of federal control it rose to over 86 per cent and in 1919 to over 87 per cent. In 1920 (including two months of federal control and six months of guaranty period) the ratio was 102 per cent." "In other words," the brief says, "during federal control, while rates and wages and control of personnel were out of its hands, the operating ratio increased from 70 to 100 per cent." The brief concludes its government criticism of government management by saying that "on emerging from federal control the New Haven found its credit so impaired that it could not borrow money except from the government."

"In the light of the facts as presented in the record, the respondent maintains that while it did, prior to 1913, make some investments which perhaps should not have been made, and while it paid more for others than they were worth, such outside investments were not the sole or principal cause of its financial difficulties. If it had been allowed to manage those properties as they should have been managed, if its earnings and railroad property had not been run down during federal control, if it had not been compelled to contribute

$14,000,000 to the government, and last, but not least, if the depression had not deprived it of a large part of its gross business, it would have been able to carry the outside investments and to write them off or readjust them in such a way as to have absorbed its losses and put the properties on a profitable basis.

"The proof of this contention, we submit, is found in what happened during the six or eight years prior to the depression, when, in spite of the results of government prosecution, federal control and government loans, the New Haven was able to meet all its fixed charges, reduce its debt, pay dividends, and still build up its surplus very substantially."

Proposed Change in Demurrage Rules Suspended

The Interstate Commerce Commission has suspended from January 1 until August 1 the operation of tariff schedules by which the railroads propose to establish a proviso in connection with the rules governing car demurrage charges applicable generally throughout the United States, which would permit rail carriers, at their option, to terminate the so-called average agreement arrangement for any breach of the terms thereof by shippers.

Wabash to Buy Bridge

The Wabash was authorized by the Federal District Court on December 31 to buy the combination rail and vehicle bridge over the Mississippi river at Hannibal from the Hannibal Bridge Company for $500,000. In the application for permission to buy the bridge, the receivers of the railroad said the opening last September of the new Mark Twain bridge at Hannibal had reduced the vehicle tolls on the other bridge so greatly that it was necessary to purchase the structure or make a new rental agreement. Since 1883 the railroad had been operating the bridge under a lease.

I. C. to Picture "Behind Scenes"

The 1937 institutional advertising campaign of the Illinois Central will be devoted to showing the general public views behind the scenes in railroading. The January advertisement will illustrate car repair shops and carry the headline "Behind the Scenes," which will be the headline for the entire series. Copy in the advertisement will point out progressive developments that have taken place recently in the car shops to improve equipment and service. Each advertisement in the series will include a box carrying a personal message by L. A. Downs, president. The 1937 campagin is scheduled to appear in 468 on-line newspapers; of these 26 will carry monthly insertions of 600 lines each, and 442 will have monthly insertions of 308 lines each.

Central Railway Club Annual Dinner January 14

The Forty-eighth annual dinner of the Central Railway Club of Buffalo will be be held on Thursday, January 14 at 7 p.m. in the Hotel Statler, Buffalo, N. Y. The speaker of the evening will be J. M. Davis, president of the Delaware, Lackawanna & Western.

The special train carrying the New York delegation will be operated this year by the Lackawanna and will leave Hoboken, N. J., on January 13 at 6 p.m. For the return trip the special train will leave Lackawanna Terminal, Buffalo, at 1 a.m. Friday morning, January 15, arriving in Hoboken at 9:45 a.m. S. F. Pryor, Jr. of the Southern Wheel Company, is general chairman of the New York Delegation committee. Arrangements for the dinner are being carried out under the direction of Edward F. Ryan, terminal superintendent of the Baltimore & Ohio, who is general chairman. He is being assisted by the following committee chairmen: Reservation—F. W. Rogers, freight agent, Delaware, Lackawanna & Western; dinner—J. J. Brinkworth, assistant superintendent, New York Central; reception—H. A. Hobson, superintendent, Pennsylvania.

Canadian Roads in November

The Canadian Pacific in November earned an operating net of $3,538,651, as compared with $3,455,408 for November, 1935, an increase of $83,243. Gross totaled $12,116,559, showing an increase of $257,552, while operating expenses at $8,577,907 showed an increase of $174,308.

For the eleven months operating net totaled $19,769,303, against $19,091,510 for the corresponding period of 1935, an increase of $677,793. Gross for the period at $126,309,559 was larger by $8,211,921, while operating expenses at $106,540,256 showed an increase of $7,534,128.

The Canadian National in November had gross revenues totaling $16,151,674, an increase of $903,968 over the corresponding month of 1935. Operating expenses were $13,768,403, an increase of $849,852 over the preceding year. Net operating revenue for the month amounted to $2,383,271, exceeding that of November, 1935, by $54,116.

For the eleven months operating revenues totaled $169,386,264, an increase of $11,215,644 as compared with the corresponding period of 1935. Operating expenses totaled $157,159,013, showing an increase of $11,080,173 over the similar period of last year. Net operating revenue of the system for the eleven months amounted to $12,227,251, an increase of $135,471 over the similar period of 1935.

Atlantic Shippers Board

The docket of the Thirteenth annual meeting of the Atlantic States Shippers Advisory Board, which will be held January 20 and 21 at the Hotel Commodore, New York, includes the election of officers and discussions of several subjects of mutual interest to shippers and railroads.

Among the subjects to be considered are the railroads' program for building new equipment; government ownership of railroads; co-ordination of intrastate and interstate motor vehicles for hire; freight loss and damage prevention; the usual analysis of the trend of commodity shipments anticipated in the first quarter of 1937; and probable legislative proposals to the Seventy-fifth Congress and their effect upon shippers and railroads. At a luncheon on January 21 William H. Day, manager, transportation bureau, Boston Chamber of Commerce, will speak on "The Relationship of Shipper and Carrier"

$50,000,000 Apportioned for Grade Crossing Work

The Secretary of Agriculture on December 29 apportioned to the various states $125,000,000 of regular federal aid for improvement of the federal-aid highway system, $25,000,000 for improvement of secondary or farm-to-market roads, and $50,000,000 for elimination of hazards at grade crossings. The new apportionments are for the fiscal year beginning July 1, 1937, and are in addition to the $200,000,000 program now under way. The states are required to match the funds for improvement of the federal-aid system and for secondary roads. It is not required that the grade crossing funds be matched. Regulations under which the two new funds will be administered are now being prepared.

The amounts apportioned are shown in the accompanying table.

Apportionment of Grade Crossing Funds for the Fiscal Year 1938

Alabama	$1,015,170
Arizona	314,594
Arkansas	893,403
California	1,874,656
Colorado	657,357
Connecticut	426,784
Delaware	250,000
Florida	712,816
Georgia	1,223,099
Idaho	418,115
Illinois	2,644,980
Indiana	1,308,113
Iowa	1,410,787
Kansas	1,307,669
Kentucky	919,174
Louisiana	799,226
Maine	352,468
Maryland	519,993
Massachusetts	1,047,500
Michigan	1,664,807
Minnesota	1,342,809
Mississippi	806,707
Missouri	1,528,920
Montana	671,204
Nebraska	892,976
Nevada	250,000
New Hampshire	250,000
New Jersey	997,689
New Mexico	432,291
New York	3,424,399
North Carolina	1,244,662
North Dakota	803,068
Ohio	2,141,704
Oklahoma	1,156,175
Oregon	588,377
Pennsylvania	2,905,671
Rhode Island	250,000
South Carolina	752,928
South Dakota	694,096
Tennessee	958,753
Texas	2,724,825
Utah	322,885
Vermont	250,000
Virginia	941,656
Washington	767,991
West Virginia	671,712
Wisconsin	1,252,871
Wyoming	344,961
District of Columbia	250,000
Hawaii	250,000
Puerto Rico	369,959
Total	$50,000,000

Legislative Policies of the Short Line Association

The American Short Line Railroad Association has issued a review of the legislative policies of the association for the period from 1913 to 1936 and the present policy of the association.

"The association will support, in the Seventy-fifth Congress," says the association, "bills enabling the Interstate Commerce Commission to establish through routes and joint rates when found to be in the public interest; the Petten-

gill fourth section bill, repealing the long-and-short-haul clause of the fourth section of the interstate commerce act, and the bills for the regulation of water carriers. The association will also urge the discontinuance of subsidies to and equalization of the tax burden upon all forms of transportation; will urge the repeal of the land-grant rate statutes; and endeavor to obtain relief from financial burdens incident to the separation of highway grade crossings. It will also oppose those bills which add expenses to the operation of the railroads without at the same time improving the service to the using public."

Prohibition of Transportation of Prison-Made Goods Upheld

In a unanimous decision written by Chief Justice Hughes the Supreme Court this week upheld the constitutionality of the Ashurst-Sumners act which makes it unlawful to knowingly transport in interstate or foreign commerce goods made by convict labor into any state where the goods are intended to be received, possessed, sold or used in violation of its laws, and provides further that packages containing convict-made goods must be plainly labeled so as to show the names and address of shipper and consignee, the nature of the contents, and the name and location of the penal or reformatory institution where they are produced. The court held that this act was a valid exercise of the power of Congress to regulate interstate commerce.

The case was instituted by the Kentucky Whip & Collar Company against the Illinois Central and arose over a refusal of the railroad to transport products manufactured by this company in one of the Kentucky state prisons with the use of convict labor. Close observers of the court see in the decision an indication on the part of the court that it may allow the federal government to prohibit the transportation of goods into states where the sale of goods produced with child labor or under low wage and long hour conditions is prohibited. The decision has heartened those advocates of congressional action in regard to wages and hours who feel that a constitutional amendment is not necessary to accomplish this action. The government and the attorneys-general of New York and Minnesota filed briefs at "friends of the court." The attorney for the railroad contended that its only interest in the case was a decision as to whether or not it was unlawful for it to transport prison made goods into states where their sale or use was prohibited.

Club Meetings

L. W. Wallace, director, Equipment Research division of the Association of American Railroads, Planning and Research department, will present a paper on "Air Conditioning of Passenger Cars" at this month's meeting of the New York Railroad Club, to be held on Friday, January 15, at 7:45 p.m. in the auditorium of the Engineering Societies building, 29 West 39th street, New York.

J. M. R. Fairbairn, chief engineer of the Canadian Pacific, will present a paper on "The Importance of Track Structure in Railroad Transportation" at the January 12 meeting of the New England Railroad Club to be held in the Hotel Touraine, Boston, Mass. The meeting as usual will open with a dinner at 6:30 p.m.

The Canadian Railway Club will hold its next meeting on January 11 at 8:15 p.m. in the Windsor Hotel, Montreal. Dr. Charles Camsell, deputy minister, Department of Mines of Canada, will be the speaker.

The Western Railway Club's first meeting of the year will be held on January 18 at 8 p.m. in the Sherman Hotel, Chicago. A paper on "Car Design" will be presented by W. H. Mussey, research engineer, Pullman-Standard Car Manufacturing Company. A reception and dinner will precede the meeting.

Lawford H. Fry, railway engineer, Edgewater Steel Company, Pittsburgh, Pa. presented a paper on "Notes on Locomotive Testing With a Glance at History" at the last meeting of the Railway Club of Pittsburgh which was held on December 17, 1936.

The Car Foremen's Association of Omaha will hold its next meeting on January 14 in the Omaha, Nebr., passenger station of the Chicago, Burlington & Quincy. F. M. Rezner will speak on loading of small and light scrap iron.

W. J. Eck, assistant to the vice-president of the Southern, was to be the speaker at the meeting of the Railroad Enthusiasts, Washington Division, on January 9.

Railroad Not Liable for Money Stolen in Mail

The Illinois Supreme court at Springfield, on December 16, ruled that the Illinois Central is not liable for the loss of $21,974 which was stolen in 1929 while being carried by registered mail from a Chicago bank to the Franklin Coal Company at Royalton, Ill. The Aetna Insurance Company sued the railroad in the Cook County Circuit court, and won judgment, which was affirmed by the Appellate court.

The Illinois Appellate Court held that since it appeared that the pouch containing the currency was stolen because of lack of protection supplied it when the entire train crew was engaged elsewhere in general railroad duties and that none of the employees that handled the pouch had taken any oath prescribed by law for employees of the Post Office Department nor was any hired or paid by the latter department. Under these circumstances the bank's assignee was held entitled to recover. Aetna Ins. Co. v. Illinois Central, 283 Ill. Appl. 527.

The Appellate Court, rejected, as a minor point, the railroad's contention that "where the Post Office Department imposes a fine upon a railroad mail contractor for alleged delinquencies, its action in so doing constitutes an election of remedies and exhausts the only remedy available" and "the government having levied a $50 fine against the railroad has elected the remedy it desired to pursue. This remedy was an exclusive remedy and exhausted the rights of the government or any one else against the railroad." U. S. v. Atl. Coast Line, 215 Fed. 56. affirming U. S. v. same 206 Fed. 190. The Circuit Court of Appeals in that case sustained the holding of the District judge that because of the contract between the parties and the facts, the postmaster general intended the fine as an exclusive remedy. "But" the Appellate Court said, "the government is not a party to this proceeding, and plaintiff's right of action, if it has one, is not based upon the theory of any privity of contract, or because of any interest that it may have in any contract between the carrier and the government, but upon the ground of tort liability, and we hold that the contention of defendant is not a meritorious one. This judgment was reversed by the Supreme court which ruled that one who chooses to send a valuable parcel by mail becomes bound by the government's selection of agents and its contracts with the forwarding companies.

1937 Viewed with Optimism

Generally favorable comment on railway conditions in 1936 and expressions of optimism as to prospects for 1937 characterized the year-end pronouncements of railroad executives. Among those making such statements were A. D. McDonald, president of the Southern Pacific; M. W. Clement, president of the Pennsylvania; Daniel Willard, president of the Baltimore & Ohio; and H. D. Pollard, receiver for the Central of Georgia.

Mr. McDonald pointed out how the railroads, encouraged by increasing business, "moved forward with quickened pace in 1936." While, he continued, certain aspects of this advance were so spectacular as to seem like "a sudden renaissance" of railroading, the situation has actually been one of steady progress throughout the depression. Mr. McDonald next cited several outstanding developments in passenger and freight service before proceeding to his brief review of Southern Pacific operations in 1936 and outline of its plans for 1937. Continuation of the forward movement, he concluded, depends upon the volume of traffic received by the railroads; and "the conditions imposed by law and regulation under which they operate in competition with other forms of transportation, and whether or not they are singled out for special burdens and restrictions as compared with other industries."

Mr. Clement's statement was a list of the "notable advances which have been made by the railroads during the year just ending." In this connection he cited the upturn in employment; the greatly-expanded usefulness of rail transport through faster and more convenient schedules and pick-up and delivery service; better relationships between management and labor, as evidenced by efforts of both railroad and labor executives to settle at the conference table, instead of by legislation, matters which mutually concern them; the success of the railroads' public relations activities; and the progress in improving railroad facilities. Concluding, Mr. Clement considered it "important to point out" that "if current uncertainties, legislative and regulative, could be removed, the railroads of this country would be in a position through steadily increasing employment and purchases to give returning

prosperity a continuing and greater impetus than could come from perhaps any other source."

Mr. Willard, in his New Year greeting to B. & O. and Alton employees called attention to the fact that the former road is beginning the 110th year of its existence. He referred to the "trying years" of the depression in which the railroads "have made a showing of which they need not be ashamed." In the latter connection he cited such developments as air conditioning, more frequent and faster services and reduced fares, all of which have restored to the railroads much of the business "which had gradually been diverted to other transportation agencies."

Mr. Pollard called 1936 "a year of progress for the railroads," citing in this connection several developments. Among the latter he referred to the increase in railway employment to a point "higher than at any time in the past five years." Mr. Pollard added that "few experienced railway men are now without employment" —many railroads "have recalled all employees furloughed during the slack years, and are going outside for the employment of new men."

Meetings and Conventions

The following list gives names of secretaries, date of next or regular meetings, and places of meetings:

Air Brake Association.—T. L. Burton, Room 3400, Empire State Bldg., New York, N. Y.

Allied Railway Supply Association.—F. W. Venton, Crane Company, 836 S. Michigan Ave., Chicago, Ill. To meet with Air Brake Association, Car Department Officers' Association, International Railway Master Blacksmiths' Association, International Railway General Foremen's Association and the Master Boiler Makers' Association.

American Association of Freight Traffic Officers.—W. R. Curtis, F. T. R., M. & O. R. R., Chicago, Ill.

American Association of General Baggage Agents.—E. L. Duncan, 816 McCormick Bldg., Chicago, Ill. Annual meeting, September, 1937, Boston, Mass.

American Association of Passenger Traffic Officers.—W. C. Hope, C. R. R. of N. J., 143 Liberty St., New York, N. Y.

American Association of Railroad Superintendents.—F. O. Whiteman, Union Station, St. Louis, Mo. Annual meeting, June 15-17, 1937, Palmer House, Chicago, Ill.

American Association of Railway Advertising Agents.—E. A. Abbott, Poole Bros., Inc., 85 W. Harrison St., Chicago, Ill. Annual meeting, January 15-16, 1937, Mayflower Hotel, Washington, D. C.

American Association of Superintendents of Dining Cars.—F. R. Borger, C. I. & L. Ry., 836 S. Federal St., Chicago, Ill.

American Railway Bridge and Building Association.—C. A. Lichty, 319 N. Waller Ave., Chicago, Ill. Annual meeting, 1937, Chicago, Ill. Exhibit by Bridge and Building Supply Men's Association.

American Railway Car Institute.—W. C. Tabbert, 19 Rector St., New York, N. Y.

American Railway Development Association.—E. J. Hoddy, Louisville & Nashville R. R., Louisville, Ky.

American Railway Engineering Association.—Works in co-operation with the Association of American Railroads, Division IV.—E. H. Fritch, 59 E. Van Buren St., Chicago, Ill. Annual meeting, March 16-18, 1937, Palmer House, Chicago, Ill.

American Railway Magazine Editors' Association.—M. W. Jones, Baltimore & Ohio R. R., Mt. Royal Station, Baltimore, Md.

American Railway Tool Foremen's Association.—G. G. Macina, C., M., St. P. & P. R. R., 11402 Calumet Ave., Chicago, Ill.

American Short Line Railroad Association.—R. E. Schindler, Union Trust Bldg., Washington, D. C.

American Society of Mechanical Engineers.—C. E. Davies, 29 West 39th St., New York, N. Y.
- Railroad Division.—Marion B. Richardson, 21 Hazel Ave., Livingston, N. J.

American Transit Association.—Guy C. Hecker, 292 Madison Ave., New York, N. Y.

American Wood Preservers' Association.—H. L. Dawson, 1427 Eye St., N. W., Washington, D. C. Annual meeting, January 26-28, 1937, Roosevelt Hotel, New Orleans, La.

Association of American Railroads.—H. J. Forster, Transportation Bldg., Washington, D. C.
- Operations and Maintenance Department.—J. M. Symes, Vice-President, Transportation Bldg., Washington, D. C.
  - Division I.—Operating.—J. C. Caviston, 30 Vesey St., New York, N. Y.
    - Freight Station Section.—R. O. Wells, Freight Agent, Illinois Central Railroad, Chicago, Ill.
    - Medical and Surgical Section.—J. C. Caviston, 30 Vesey St., New York, N. Y.
    - Protective Section.—J. C. Caviston, 30 Vesey St., New York, N. Y.
    - Safety Section.—J. C. Caviston, 30 Vesey St., New York, N. Y.
    - Telegraph and Telephone Section.—W. A. Fairbanks, 30 Vesey St., New York, N. Y. Annual meeting, Oct. 5-7, 1937, Chicago, Ill.
  - Division II.—Transportation.—L. R. Knott, 59 E. Van Buren St., Chicago, Ill.
  - Division IV.—Engineering.—E. H. Fritch, 59 E. Van Buren St., Chicago, Ill. Annual meeting, March 16-18, 1937, Palmer House, Chicago, Ill.
    - Construction and Maintenance Section.—E. H. Fritch, 59 E. Van Buren St., Chicago, Ill. Annual meeting, March 16-18, 1937, Palmer House, Chicago, Ill.
    - Electrical Section.—E. H. Fritch, 59 E. Van Buren St., Chicago, Ill.
    - Signal Section.—R. H. C. Balliet, 30 Vesey St., New York, N. Y. Annual meeting, March 15-16, 1937, Hotel Stevens, Chicago, Ill.
  - Division V.—Mechanical.—V. R. Hawthorne, 59 E. Van Buren St., Chicago, Ill. Annual meeting, June 16-23, 1937, Atlantic City, N. J. Exhibit by Railway Supply Manufacturers Association.
  - Division VI.—Purchases and Stores.—W. J. Farrell, 30 Vesey St., New York, N. Y. Annual meeting, June, 1937, Atlantic City, N. J. Exhibit by Railway Supply Manufacturers Association.
  - Division VII.—Freight Claims.—Lewis Pilcher, 59 E. Van Buren St., Chicago, Ill. Annual meeting, June 15-17, 1937, Royal York Hotel, Toronto, Ontario, Canada.
  - Division VIII.—Motor Transport.—George M. Campbell, Transportation Bldg., Washington, D. C.
  - Car-Service Division.—C. A. Buch, Transportation Bldg., Washington, D. C.
- Traffic Department.—A. F. Cleveland, Vice-President, Transportation Bldg., Washington, D. C.
- Finance, Accounting, Taxation and Valuation Department.—E. H. Bunnell, Vice-President, Transportation Bldg., Washington, D. C.
  - Accounting Division.—E. R. Ford, Transportation Bldg., Washington, D. C.
  - Treasury Division.—E. R. Ford, Transportation Bldg., Washington, D. C.

Association of Railway Claim Agents.—F. L. Johnson, Chief Clerk and Claim Agent, General Claims Dept., Alton R. R., 340 W. Harrison St., Chicago, Ill. Annual meeting, May 26-28, 1937, Netherland Plaza Hotel, Cincinnati, Ohio.

Association of Railway Electrical Engineers.—Jos. A. Andreucetti, C. & N. W. Ry., 1519 Daily News Bldg., 400 W. Madison St., Chicago, Ill. Exhibit by Railway Electrical Supply Manufacturers' Association.

Bridge and Building Supply Men's Association.—W. S. Carlisle, National Lead Company, 900 W. 18th St., Chicago, Ill. Meets with American Railway Bridge and Building Association.

Canadian Railway Club.—C. R. Crook, 2271 Wilson Ave., N. D. G., Montreal, Que. Regular meetings, second Monday of each month, except June, July and August, Windsor Hotel, Montreal, Que.

Car Department Officers' Association.—A. S. Sternberg, M. C. B. Belt Ry. of Chicago, 7926 S. Morgan St., Chicago, Ill.

Car Foremen's Association of Chicago.—G. K. Oliver, 2514 W. 55th St., Chicago, Ill. Regular meetings, second Monday of each month, except June, July and August, La Salle Hotel, Chicago, Ill.

Car Foremen's Association of St. Louis, Mo.—E. G. Bishop, Illinois Central System, East St. Louis, Ill. Regular meetings, third Tuesday of each month except June, July and August, Hotel Statler, St. Louis, Mo.

Central Railway Club of Buffalo.—Mrs. M. D. Reed, 1817 Hotel Statler, McKinley Square, Buffalo, N. Y. Regular meetings, second Thursday of each month except June, July and August, Hotel Statler, Buffalo, N. Y.

International Railway Fuel Association.—(See Railway Fuel and Traveling Engineers' Association.)

International Railway General Foremen's Association.—Wm. Hall, 1061 W. Wabasha St., Winona, Minn.

International Railway Master Blacksmiths' Association.—W. J. Mayer, Michigan Central R. R., Detroit, Mich.

Master Boiler Makers' Association.—A. F. Stiglmeier, 29 Parkwood St., Albany, N. Y. Annual meeting, September, 1937, Hotel Sherman, Chicago, Ill.

National Association of Railroad and Utilities Commissioners.—Clyde S. Bailey, 810 18th St., N. W., Washington, D. C. Annual meeting, August 31-September 3, 1937, Salt Lake City, Utah.

National Railway Appliances Association.—C. H. White (Pres. and Sec'y), Room 1826, 208 S. La Salle St., Chicago, Ill. Exhibit at A. R. E. A. Convention, March 15-18, 1937, The Coliseum, Chicago, Ill.

New England Railroad Club.—W. E. Cade, Jr., 683 Atlantic Ave., Boston, Mass. Regular meetings, second Tuesday of each month, except June, July, August and September, Hotel Touraine, Boston, Mass.

New York Railroad Club.—D. W. Pye, 30 Church St., New York, N. Y. Regular meetings, third Friday of each month, except June, July and August, 29 W. 39th St., New York, N. Y.

Pacific Railway Club.—William S. Wollner, P. O. Box 3275, San Francisco, Cal. Regular meetings, second Thursday of each month, alternately at San Francisco and Oakland, excepting June at Los Angeles and October at Sacramento.

Railway Business Association.—P. H. Middleton, First National Bank Bldg., Chicago, Ill.

Railway Club of Pittsburgh.—J. D. Conway, 1941 Oliver Bldg., Pittsburgh, Pa. Regular meetings, fourth Thursday of each month, except June, July and August, Fort Pitt Hotel, Pittsburgh, Pa.

Railway Electrical Supply Manufacturers' Association.—J. McC. Price, Allen-Bradley Company, 600 W. Jackson Blvd., Chicago, Ill. Meets with Association of Railway Electrical Engineers.

Railway Fire Protection Association.—P. A. Bissell, 40 Broad St., Boston, Mass.

Railway Fuel and Traveling Engineers' Association.—T. Duff Smith, 1660 Old Colony Bldg., Chicago, Ill.

Railway Supply Manufacturers' Association.—J. D. Conway, 1941 Oliver Bldg., Pittsburgh, Pa. To meet with Mechanical Division and Purchases and Store Division, Association of American Railroads, June 16-23, 1937, Atlantic City, N. J.

Railway Telegraph and Telephone Appliance Association.—G. A. Nelson, Waterbury Battery Company, 30 Church St., New York, N. Y. Meets with Telegraph and Telephone Section of A. A. R., Division I.

Railway Tie Association.—Roy M. Edmonds, 1438 Syndicate Trust Bldg., St. Louis, Mo.

Roadmasters' and Maintenance of Way Association.—T. F. Donahoe, Gen. Supvr. Road, Baltimore & Ohio, Pittsburgh, Pa. Annual meeting, September 14-16, 1937, Chicago, Ill.

Signal Appliance Association.—G. A. Nelson, Waterbury Battery Company, 30 Church St., New York, N. Y. Meets with A. A. R., Signal Section.

Society of Officers, United Associations of Railroad Veterans.—M. W. Jones, Baltimore & Ohio, Mt. Royal Station, Baltimore, Md. Annual meeting, October 9-10, 1937, Richmond, Va.

Southern and Southwestern Railway Club.—A. T. Miller, 4 Hunter St., S. E., Atlanta, Ga. Regular meetings, third Thursday in January, March, May, July, September and November, Ansley Hotel, Atlanta, Ga.

Southern Association of Car Service Officers.—D. W. Brantley, C. of Ga. Ry., Savannah, Ga. Annual meeting, January 21, 1937, Southern Railway General Office Bldg., Atlanta, Ga.

Tool Foremen Suppliers' Association.—E. E. Caswell, Union Twist Drill Co., 11 S. Clinton St., Chicago, Ill. Meets with American Railway Tool Foremen's Association.

Toronto Railway Club.—R. H. Burgess, P. O. Box 8, Terminal "A," Toronto, Ont. Regular meetings, fourth Monday of each month, except June, July and August, Royal York Hotel, Toronto, Ont.

Track Supply Association.—D. J. Higgins, Gardner-Denver Company, 332 S. Michigan Ave., Chicago, Ill. Meets with Roadmasters' and Maintenance of Way Association.

Traveling Engineers' Association.—(See Railway Fuel and Traveling Engineers' Association.)

Western Railway Club.—C. L. Emerson, C. M., St. P. & P., Chicago, Ill. Regular meetings, third Monday of each month, except June, July, August and September, Hotel Sherman, Chicago, Ill.

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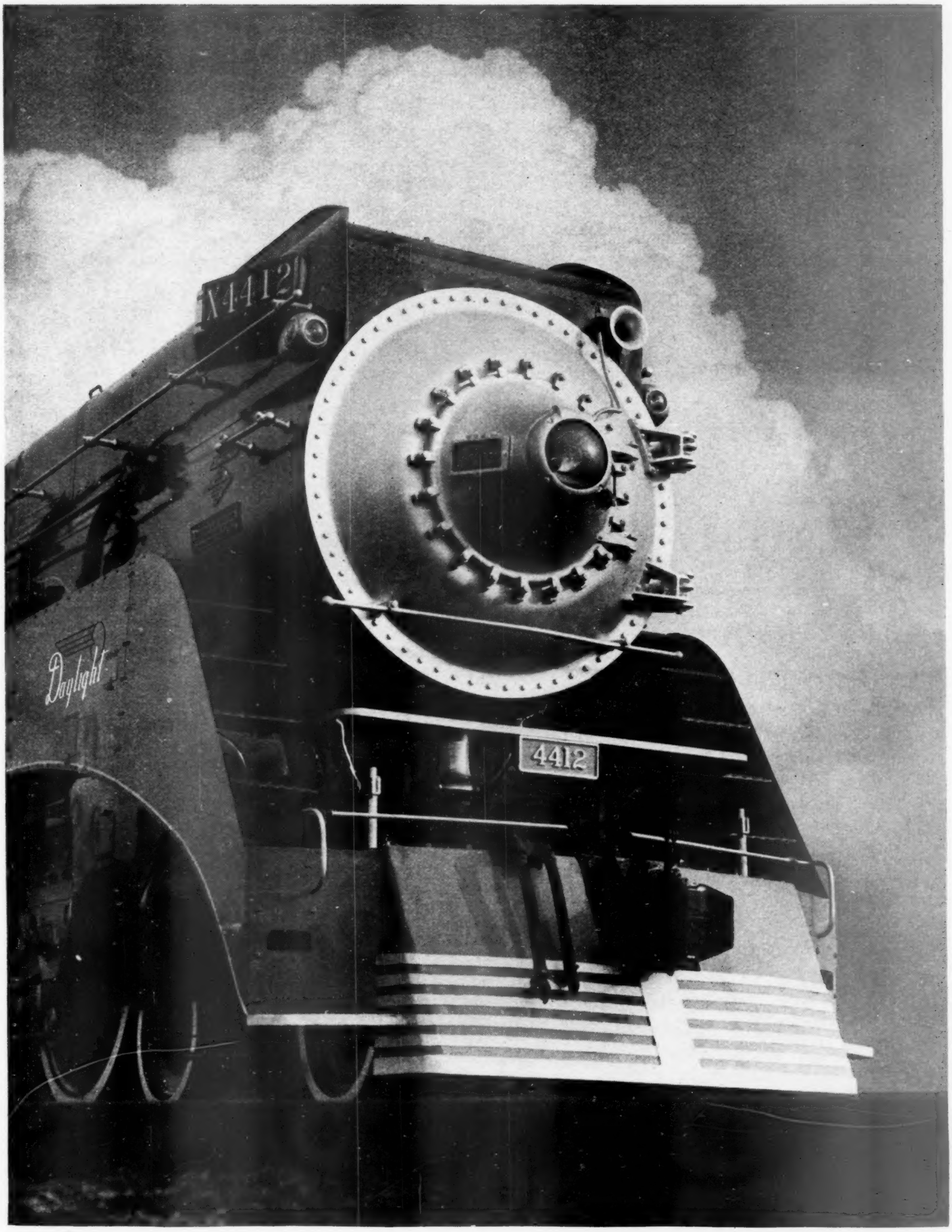

One of six Southern Pacific 4-8-4 Type Locomotives recently delivered by Lima Locomotive Works, Incorporated

LIMA LOCOMOTIVE WORKS, INCORPORATED, LIMA, OHIO

LIMA
LOCOMOTIVE WORKS
INCORPORATED

Equipment and Supplies

LOCOMOTIVES

THE WEYERHAEUSER TIMBER COMPANY has ordered two locomotives of the 2-6-6-2 type, from the Baldwin Locomotive Works.

THE DELAWARE, LACKAWANNA & WESTERN, reported in the *Railway Age* of November 21 as inquiring for five passenger locomotives of the 4-6-4 type, has ordered this equipment from the American Locomotive Company. These locomotives are designed for high speed in through service between New York and Buffalo. They will be equipped with 80-in. driving wheels.

FREIGHT CARS

THE NASHVILLE, CHATTANOOGA & ST. LOUIS contemplates buying 500 box cars.

THE ANACONDA COPPER MINING COMPANY is inquiring for 200 ore cars of 50 tons' capacity.

THE DOMINION STEEL & COAL CORPORATION, LTD., has ordered 100 hopper cars from the Eastern Car Company, Ltd.

GODFREY L. CABOT, INC., has ordered 10 special hopper cars of 35 tons' capacity from the Pressed Steel Car Company.

THE PERE MARQUETTE has ordered 25 caboose cars from the Magor Car Corporation.

THE WHEELING & LAKE ERIE has ordered 250 hopper cars of 60 tons' capacity from its own shops.

THE PHELPS DODGE CORP. is inquiring for 25, 50 or 100 air dump cars of 70 tons' capacity.

THE MICHIGAN LIMESTONE & CHEMICAL COMPANY is inquiring for 30 air dump cars of 30 cu. yd. capacity.

THE VIRGINIA SMELTING COMPANY has ordered one tank car of 40 tons' capacity from the General American Transporation Corp.

THE CLINCHFIELD is inquiring for 1,250 freight cars, including 800 hopper cars, 200 gondola cars of 50 tons' capacity and 250 box cars of 50 tons' capacity.

THE CHICAGO & ILLINOIS MIDLAND is inquiring for 100 hopper cars of 50 tons' capacity, and 100 gondola cars of 70 tons' capacity.

THE CHESAPEAKE & OHIO has ordered 25 steel dry bulk cars of 70 tons' capacity from the American Car & Foundry Company, and 50 stock cars of 40 tons' capacity from the Greenville Steel Car Company. Inquiry for this equipment was reported in the *Railway Age* of December 5.

THE CHICAGO & NORTH WESTERN has ordered 1,000 freight cars, including 500 hopper cars of 70 tons' capacity, from the Pressed Steel Car Company, and 500 automobile box cars of 50 tons' capacity from the Mount Vernon Car Manufacturing Company. Inquiry for this equipment was reported in the *Railway Age* of November 28 and December 12, 1936.

THE MISSOURI-KANSAS-TEXAS is inquiring for 1,250 freight cars, including 500 gondola cars of 40 tons' capacity; 100 automobile cars of 40 tons' capacity with side doors and to be equipped with loaders; 150 automobile cars of 50 tons' capacity, of which 125 are to have side doors and 25 are to have side and end doors and to be equipped with loaders; 500 stock cars of 40 tons' capacity.

THE NEW YORK, CHICAGO & ST. LOUIS has ordered 500 steel, high-side, drop-end gondola cars of 50 tons' capacity and 25 steel, dry bulk cars of 70 tons' capacity from the American Car & Foundry Company; 500 box cars from the General American Transportation Corp., 100 auto-furniture cars from the Ralston Steel Car Company and 75 hopper cars from the Pullman-Standard Car Manufacturing Company, all of 50 tons' capacity.

PASSENGER CARS

THE PERE MARQUETTE has ordered 10 baggage-express cars from the St. Louis Car Company.

THE BOSTON & MAINE has placed an order for 20 passengers coaches with the Pullman - Standard Car Manufacturing Company.

THE MISSOURI-KANSAS-TEXAS is inquiring for three dining cars, one lounge car and 25 chair cars, the latter to be air conditioned.

THE CHESAPEAKE & OHIO has ordered 10 horse-express cars from the St. Louis Car Company. Inquiry for this equipment was reported in the *Railway Age* of December 5.

THE CHICAGO & NORTH WESTERN has ordered 23 Challenger-type coaches from the Pullman-Standard Car Manufacturing Company. Inquiry for this equipment was reported in the *Railway Age* of December 12, 1936.

IRON AND STEEL

THE BOSTON & MAINE has ordered 6,000 tons 112-lb. rail from the Bethlehem Steel Company.

THE MAINE CENTRAL has ordered 3,500 tons 112-lb. rail from the Bethlehem Steel Company.

THE NEW YORK, NEW HAVEN & HARTFORD has placed orders for 2,500 tons of rail with the Bethlehem Steel Company, and 2,500 tons with the Carnegie-Illinois Steel Corporation, for delivery during the first quarter of 1937.

MOTOR VEHICLES

THE CONNECTICUT COMPANY, an affiliate of the New York, New Haven & Hartford, has received delivery of one 31-passenger bus from the Twin Coach Company.

Supply Trade

The General American Transportation Corporation has moved its New York office from 122 East 42nd street to 50 West 50th street.

The Chicago Railway Equipment Company, Chicago, has moved its office at New York City from 90 West Broadway to 230 Park Avenue, effective January 1.

The Worthington Pump & Machinery Corporation, Harrison, N. J., on January 1, absorbed its subsidiary, the **Worthington Company, Inc.,** with offices at Seattle, Wash., San Francisco, Cal., Los Angeles and El Paso, Texas.

E. T. Schroeder, who has been associated with the **O'Fallon Company,** St. Louis, Mo., for 16½ years has resigned to enter business for himself as a railway supply representative, with offices in the Syndicate Trust building, St. Louis.

George B. Christian, formerly sales engineer, western territory, for the **Wine Railway Appliance Company,** Toledo, Ohio, has been appointed assistant general sales manager, with headquarters as heretofore at Toledo, and **Cleon M. Hannaford,** has been appointed sales engineer, western territory, with headquarters at Toledo.

B. C. Wilkerson, who until recently serviced Elesco equipment on the railroads in New England for **The Superheater Company,** has been appointed chief eastern service engineer of The Superheater Company, New York, and **Frank W. Smith,** who has been for a long time in the engineering department of The Superheater Company, has been appointed service engineer with headquarters at New York, succeeding to the activities of Mr. Wilkerson in New England.

The American Chain & Cable Company, Inc., is the new name of the company previously known as the American Chain Company, Inc.; **W. B. Lashar** is chairman of the board; **W. T. Morris,** president; **Wilmot F. Wheeler,** executive vice-president and treasurer; **A. P. Van Schaick,** vice-president in charge of sales; **C. G. Williams,** vice-president in charge of production; **W. M. Wheeler,** secretary; **Frederick C. Geier,** assistant secretary; and **Stanley Mann,** comptroller. The general executive offices remain at Bridgeport, Conn., and 230 Park avenue, New York.

The Union Switch & Signal Company, Swissvale, Pa., has made organization changes in the sales and engineering departments effective January 1, as follows: **B. T. Anderson** has been appointed general sales manager, with headquarters at Swissvale; **H. W. Griffin,** assistant to eastern manager, New York; H. McCready, district manager, New York, reporting to the eastern manager; **E. A. Warner,** assistant district manager, New York; **George Marloff,** district manager, Chicago, reporting to the western mana-

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ger; **W. W. Talbert,** assistant district manager, Chicago; **S. J. Turreff,** resident manager, St. Louis, Mo., reporting to the western manager at Chicago, vice **H. R. Sheene,** retired; **C. R. Beall,** chief engineer, reporting to the general manager, with headquarters at Swissvale, in place of **L. F. Howard,** retired; **L. O. Grondahl,** director, research and engineering, reporting to the general manager, with headquarters at Swissvale.

Herman H. Lind has been appointed executive vice-president of the **American Institute of Bolt, Nut and Rivet Manufacturers,** with headquarters in the Guardian building, Cleveland, Ohio. For 17 years Mr. Lind was engaged in accounting, engineering, production and sales work in the manufacturing field. From 1923 to 1930 he was active in consulting and negotiating work for various manufacturers. In the latter year he became general manager of the Malleable Iron Research Institute, and from July, 1932, through 1936 was general manager of the National Machine Tool Builders' Association.

Herman H. Lind

Tell Berna has been appointed general manager of the **National Machine Tool Builders' Association,** 10525 Carnegie avenue, Cleveland, Ohio, succeeding Herman H. Lind who is now executive vice-president of the American Institute of Bolt, Nut and Rivet Manufacturers. Mr. Berna is a graduate of Cornell University, where he received the degree of mechanical engineer. For the past six years he has been general sales manager of the National Acme Company of Cleveland. Prior thereto he was successively sales manager of the Union Twist Drill Company, Athol, Mass.; the G. A. Gray Company, Cincinnati, Ohio, and manager of the Cincinnati, Ohio, office of Cutler-Hammer, Inc.

Tell Berna

Wilbur D. Cloud, assistant resident manager of the **General Railway Signal Company,** has been appointed resident manager of the New York office, in charge of the eastern district. Mr. Cloud was born in Iowa on July 4, 1886. He was educated in the public and high schools at Davenport, Iowa. His first railroad experience was in the engineering department as rodman on preliminary surveys, and after serving in all capacities up to instrument man in Iowa, Tennessee, Texas and Louisiana, he was draftsman and assistant engineer on railway maintenance. In December, 1909, he entered the service of the Atchison, Topeka & Santa Fe as draftsman in the signal department at Topeka, Kan. Subsequently he became chief draftsman, construction foreman, and assistant supervisor, handling all classes of estimating, design and construction pertaining to signal work. On April 1, 1915, he resigned to go as circuit draftsman with the Central of Georgia, at Savannah, Ga. Later he was promoted to inspector, which position he held until he became sales-engineer for the General Railway Signal Company in August, 1920, and in May, 1936, he was appointed assistant resident manager, at New York.

Wilbur D. Cloud

OBITUARY

Raymond C. Dudley, who retired as president of the Chicago Cleveland Car Roofing Company, Chicago, in 1925, died in that city on January 3 of heart failure. He had been connected with the railway supply business since 1906.

Theodore H. Goodnow, vice-president of the Camel Sales Company, Chicago, subsidiary of the Youngstown Steel Door Company, died in Oak Park, Ill., on January 1 of pneumonia. He was born at Lathrop, Mo., on July 22, 1872, and entered railway service in 1890 with the Lake Shore & Michigan Southern (now part of the New York Central) at the Norwalk, Ohio, shops. In 1906 Mr. Goodnow was promoted to master car builder, which position he held until January, 1912, when he resigned to become general superintendent of the car shops of the Armour Car Lines. In August, 1912, he was appointed assistant superintendent and subsequently superintendent of the car department of the Chicago & North Western, which position he held until February, 1924, when he was elected vice-president of the Ryan Car Company. In September of that year he was elected vice-president of the Camel Sales Company, the position he was holding at the time of his death.

Theodore H. Goodnow

Construction

Grand Trunk Western.—This company has awarded a contract to the O. W. Burke Company, Detroit, for the construction at Detroit of a storage warehouse building approximately 572 feet in length, 69 feet in width at the west end, and 139 feet at the east end. The structure will consist of reinforced concrete foundation walls; a concrete floor on earth fill at truck-platform and car-deck level; structural steel framework with column spacing 40 ft. by 48 ft. centers with 18 ft. clear height below trusses; 8-in. exterior brick walls and three 12-in. interior fire walls; steel roof decking covered with built-up smooth surface asphalt roofing; manually-operated doors on track and street sides, including two large doors on the latter for access to a depressed enclosed truckway; together with paving, drainage, and a depressed service track along the north side of the building. **Estimated cost is $100,000.**

New York Central-Erie-Lehigh Valley-Delaware, Lackawanna & Western.—The New York Public Service Commission has approved a low bid of Foley Brothers, Inc., New York, of $347,746, for the elimination of the Transit Road crossings of these railroads in the village of Depew, N. Y.

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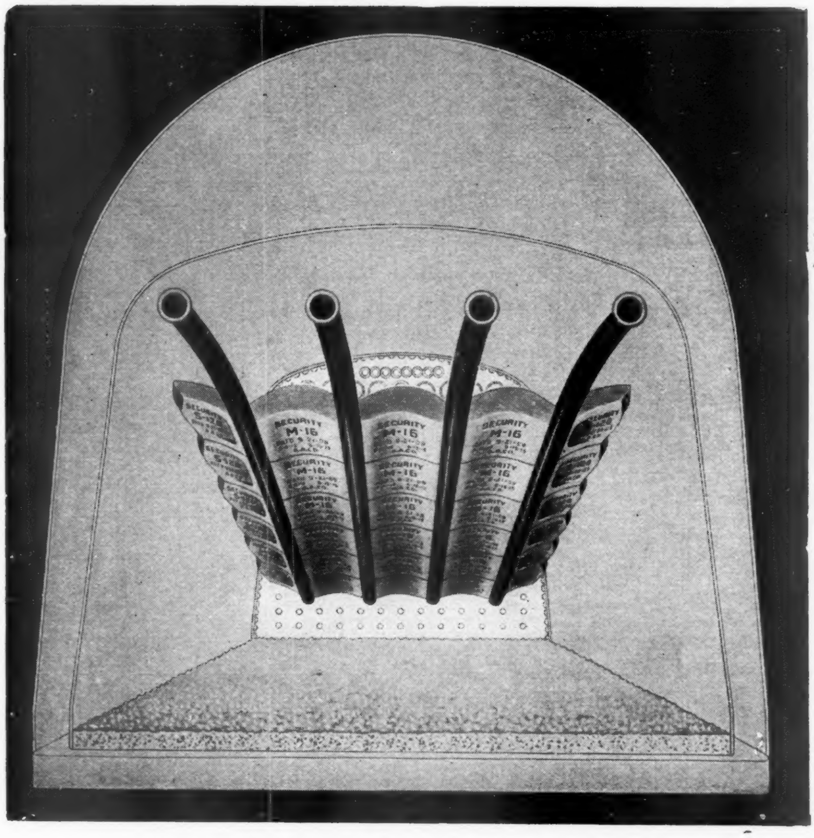
A COMPLETE BRICK ARCH

is essential to full fuel economy!



There's More to SECURITY ARCHES Than Just Brick

Security Brick Arch design is based on a broad experience with every type of locomotive in every class of service and extends over many years.

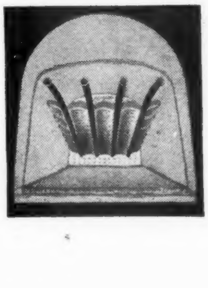
Arch design is an engineering problem that has been the life work of American Arch Company engineers.

Unless a complete arch is maintained, economy suffers. An arch, incomplete by a single course of brick, is reduced in its effectiveness. The gases are not properly mixed and the fines escape, unburned, over the arch and out the stack.

At every boiler wash period be sure a complete arch is installed.

HARBISON-WALKER REFRACTORIES CO.

Refractory Specialists



AMERICAN ARCH CO.
INCORPORATED

Locomotive Combustion Specialists » » »

Financial

Aberdeen & Rockfish.—*Bonds.*—The Interstate Commerce Commission, Division 4, has authorized this company to issue $106,000 of serial refunding 4½ per cent bonds to be sold at their principal amount and accrued interest, the proceeds to be used in the repayment of a loan from the Reconstruction Finance Corporation and for other purposes.

Atchison, Topeka & Santa Fe.—*Motor Acquisition.*—Examiner Robert R. Hendon of the Interstate Commerce Commission in a proposed report has recommended that the Southern Kansas Stage Lines be permitted to purchase the property and operating rights of the Silver Star Stages, the Central Kansas Bus Line, and the Weaver Truck Lines, subject to the condition that such steps will promptly be taken as are legally possible and necessary to effect acquisition by the Atchison, Topeka & Santa Fe from the General Improvement Company of all interest which the latter owns in the Southern Kansas Stage Lines.

Atchison, Topeka & Santa Fe.—*Acquisition.*—The Interstate Commerce Commission, Division 4, has authorized this company to acquire control of the Fort Worth & Rio Grande by purchase of the capital stock. The commission also authorized the St. Louis, San Francisco & Texas to purchase certain properties of the Fort Worth & Rio Grande and the Gulf, Colorado & Santa Fe to lease all properties of the Fort Worth & Rio Grande except those to be purchased by the St. Louis, San Francisco & Texas. The commission also authorized the St. Louis, San Francisco & Texas to operate under trackage rights over part of the main line of the Fort Worth & Rio Grande from a connection with the latter's South Belt line, at Belt Junction, Texas, to a point 1,000 feet southwest thereof, in or near Fort Worth. The commission has also issued a supplemental order modifying its consolidation plan so as to assign the Fort Worth & Rio Grande to system No. 17, Santa Fe, instead of to system No. 19, Rock Island-Frisco.

Chicago & North Western.—*Abandonment.*—The Interstate Commerce Commission, Division 4, has authorized this company to abandon parts of its line between Manning, Ia., and Harlan, 21.5 miles, and to operate over the tracks of the Chicago Great Western.

Chicago, Rock Island & Gulf.—*Bonds.*—This company has applied to the Interstate Commerce Commission for authority to assume and guarantee payment of part or all of the principal and interest of $5,000,000 of first mortgage bonds of the Union Terminal Company of Dallas, Tex.

Denver & Rio Grande Western.—*Abandonment.*—This company has asked the Interstate Commerce Commission for authority to abandon operation on its branch line from Walsenburg, Colo., to Trinidad, 48.55 miles, and to operate jointly over the tracks of the Colorado & Southern between these two points.

Duluth, South Shore & Atlantic.—*Reorganization.*—This company has filed a plan of reorganization with the federal district court, district of Minnesota, fourth division, and with the Interstate Commerce Commission.

Erie.—*Abandonment.*—This company has applied to the Interstate Commerce Commission for authority to abandon its line from Highland Mills, N. Y. to West Cornwall, 7.08 miles.

Gulf, Mobile & Northern.—*Notes.*—This company has applied to the Interstate Commerce Commission for authority to issue $800,000 of 3 per cent secured serial notes to be sold at par and dated January 1, 1937. They will mature in $100,000 installments on January 1 of each year from 1938 to 1945. Authority has also been asked to pledge $1,200,000 of this company's first mortgage 5 per cent Series C gold bonds as security for this issue. The proceeds will be used to retire outstanding obligations.

Long Island.—*Bonds.*—The Interstate Commerce Commission, Division 4, has authorized this company to issue $10,000,000 of 4 per cent refunding mortgage gold bonds, to be sold at 103¾ and accrued interest, the proceeds to be used to provide funds to meet certain 1937 maturities and to reimburse the treasury for capital expenditures. The commission has also authorized the Pennsylvania to assume obligation and liability as guarantor for these bonds.

McCloud River.—*Merger.*—The Interstate Commerce Commission, Division 5, has authorized the merger of the properties and operating rights of the McCloud Transportation Company in the McCloud River Railroad Company.

Pennsylvania.—*Abandonment.* — The Interstate Commerce Commission, Division 4, has authorized this company to abandon a part of its Sewickley branch extending about 1.5 miles beyond the Bessemer branch junction to Trauger, Pa.

Savannah & Atlanta.—*Trustee Appointments Ratified.*—The Interstate Commerce Commission, Division 4, has ratified the appointments of Charles E. Gay, Jr. and D. G. Fogarty as trustees of the property of this company.

Seaboard Air Line.—*Equipment Trust Certificates.*—This company has asked the Interstate Commerce Commission for authority for an issue of $2,500,000 of 3½ per cent equipment trust certificates to be issued by the Guaranty Trust Company of New York and sold to the Prudential Company of America at 97.72 and accrued dividends.

Western Maryland.—*Equipment Trust Certificates.*—The Interstate Commerce Commission, Division 4, has authorized this company to assume obligation and liability in respect of $1,590,000 of 2¼ per cent equipment trust certificates to be issued by the Equitable Trust Company of Baltimore, Md., as trustee, and sold at 101.41 and accrued dividends to Stroud & Co., of Philadelphia, Pa.

Yosemite Valley. — *Reorganization.* — This company has filed a plan of reorganization in the federal district court for the southern district of California, Northern division, at San Francisco, Calif., and with the Interstate Commerce Commission.

Average Prices of Stocks and Bonds

	Jan. 5	Last week	Last year
Average price of 20 representative railway stocks..	53.95	52.42	43.49
Average price of 20 representative railway bonds..	84.64	83.53	77.74

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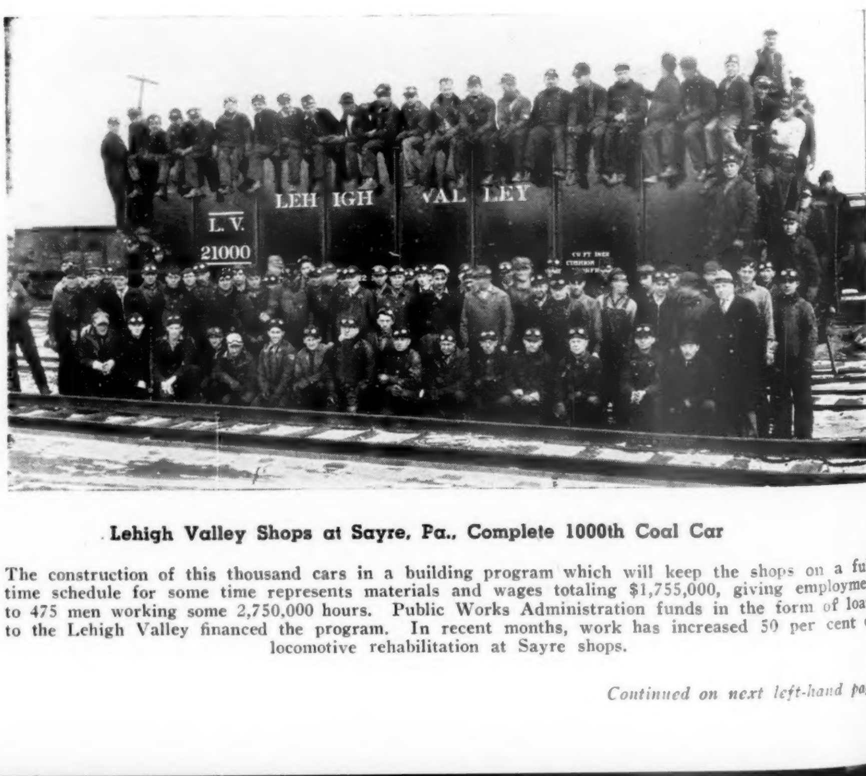

Lehigh Valley Shops at Sayre, Pa., Complete 1000th Coal Car

The construction of this thousand cars in a building program which will keep the shops on a full-time schedule for some time represents materials and wages totaling $1,755,000, giving employment to 475 men working some 2,750,000 hours. Public Works Administration funds in the form of loans to the Lehigh Valley financed the program. In recent months, work has increased 50 per cent on locomotive rehabilitation at Sayre shops.

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Railway Officers

EXECUTIVE

John G. Lonsdale, co-trustee of the St. Louis-San Francisco, has resigned as chairman of the Board of the Mercantile-Commerce Bank & Trust Company, St. Louis, Mo., in order to "take on added duties as co-trustee" of the railroad. Mr. Lonsdale's office is at St. Louis.

J. C. Yocum, manager of the safety department of the Chicago, St. Paul, Minneapolis & Omaha, with headquarters at St. Paul, Minn., has been promoted to assistant to the vice-president and general manager, to succeed **E. E. Nicoles,** who has been assigned to special duties.

E. E. McCarty, assistant general manager of the Western lines of the Atchison, Topeka & Santa Fe, with headquarters at La Junta, Colo., has been appointed assistant to the vice-president in charge of operations, with headquarters at Chicago, effective January 10, to succeed **G. W. Lupton,** who has retired after 44 years of active service with the Santa Fe.

Ernest L. Smithers, who has retired as vice-president of the Louisville & Nashville, with headquarters at New York, effective January 1, as noted in the *Railway Age* of December 26, was born on November 18, 1867, at St. Albans, England. He received his education in private schools in England and on December 1, 1884, he entered the service of the St. Louis & Cairo (now Mobile & Ohio). Subsequently until 1886 Mr. Smithers was clerk in the freight office of the Chicago, Burlington & Quincy at Chicago and clerk for the Cleveland, Akron & Columbus (now Pennsylvania) at Akron, Ohio. He was secretary to the president of the Louisville & Nashville at New York from 1886 until 1889 when he became clerk in the treasurer's office and in 1901 he became transfer agent. He served as assistant secretary and assistant treasurer from 1902 until 1916. Mr. Smithers was appointed vice-president on April 20, 1916, and has been a director since April 7, 1926, in which capacity he will continue.

George D. Brooke, whose election to the newly-created position of executive vice-president of the Chesapeake & Ohio, the New York, Chicago & St. Louis and the Pere Marquette—all members of the so-called Van Sweringen group—was reported in the *Railway Age* of December 26, has been in railroad service for 34 years, the last 12 years of which have been with the C. & O., and affiliated lines. Mr. Brooke was born on September 15, 1878, at Sutherlin, Va. Graduating from the Virginia Military Institute in 1900, he commenced his railway career in July, 1902, with the Baltimore & Ohio, as a rodman. From August to December, 1902, he was a levelman and from the end of this period to May, 1904, he served as a transitman. For the following six months he had the title of field engineer, then being appointed assistant engineer, in which capacity he served successively at Baltimore and Cumberland, Md., and at Morgan-

George D. Brooke

town, W. Va., until July, 1908, when he was appointed assistant division engineer at Pittsburgh, Pa. From July, 1909, to March, 1911, he was division engineer at Baltimore, and at the end of this period he became assistant engineer in the operating department. On February 1, 1912, Mr. Brooke was advanced to assistant superintendent at Cumberland, and in September of that year he was promoted to superintendent, serving in this capacity until May, 1918, at Winchester, Va., Chillicothe, Ohio, and Cumberland. From May to June, 1918, he was a special representative of the transportation department at Baltimore, then entering the service of the United States Railroad Administration as supervisor in the operating division, Allegheny region, at Philadelphia, Pa., which position he held until March, 1919, when he resumed his connection with the Baltimore & Ohio as superintendent of transportation at Cincinnati, Ohio. Mr. Brooke first entered the service of the Chesapeake & Ohio in August, 1924, as assistant to the vice-president at Richmond, Va. In October, 1926, he was advanced to general manager, and in the spring of 1930 he was appointed also vice-president. In 1933 Mr. Brooke was given the title of vice-president-operation and engineering-of the Chesapeake & Ohio and the New York, Chicago & St. Louis (the Nickel Plate), with headquarters at Cleveland. He was holding this position at the time of his recent appointment as executive vice-president of these companies and of the Pere Marquette, with the same headquarters. Mr. Brooke has been active in the affairs of the American Railway Engineering Association and served as president in 1930-31.

OPERATING

W. E. Robinson, superintendent of the Moncton division of the Canadian National, has been transferred in the same capacity to the Halifax division, with headquarters at Halifax, N. S., succeeding **W. R. Fitzmaurice,** who has retired. **H. V. Musgrave,** assistant superintendent, Halifax, has been appointed superintendent of the Moncton division, with headquarters at Moncton, N. B. **E. P. Elliott,** port agent, Halifax, has been appointed assistant superintendent and port agent at Halifax. **R. E. Orr,** assistant superintendent of the Belleville division, has been appointed superintendent of the Stratford division, with headquarters at Stratford, succeeding **C. J. McKeough,** who has retired. **W. K. Rogers,** chief despatcher of the London division, has been appointed assistant superintendent of the Belleville division, with headquarters at Belleville, Ont.

FINANCIAL, LEGAL AND ACCOUNTING

I. R. Estus has been appointed auditor of the Northeast Oklahoma, with headquarters at Miami, Okla., to succeed **R. C. Jones,** retired.

Ralph M. Hogin, chief clerk to the president of the Atchison, Topeka & Santa Fe at Chicago, has been promoted to comptroller, with headquarters at New York, succeeding **L. C. Deming,** who is retiring.

Henry D. Jouett, assistant to vice-president, New York Central, has assumed the duties of the superintendent of insurance, succeeding **C. J. Parker,** who has retired. The title of superintendent of insurance has been abolished.

Harry C. Oswald, assistant secretary of the Canadian Pacific, with headquarters at Montreal, Que., retired from that position on December 31, under the company's pension regulations. Mr. Oswald entered the service of the Canadian Pacific on

Harry C. Oswald

October 1, 1887, as correspondence clerk in the office of the assistant freight traffic manager, Montreal, becoming invoice clerk in the purchasing department at Montreal in December, 1889. Since January 1, 1890, he has been in the secretary's office at Montreal, first as clerk, and becoming chief clerk in July, 1896. On November 1, 1911, Mr. Oswald became assistant secretary of the company, which position he held until his retirement.

TRAFFIC

George Williams, freight traffic manager of the Denver & Rio Grande Western, has been appointed to the newly-created position of general traffic man-

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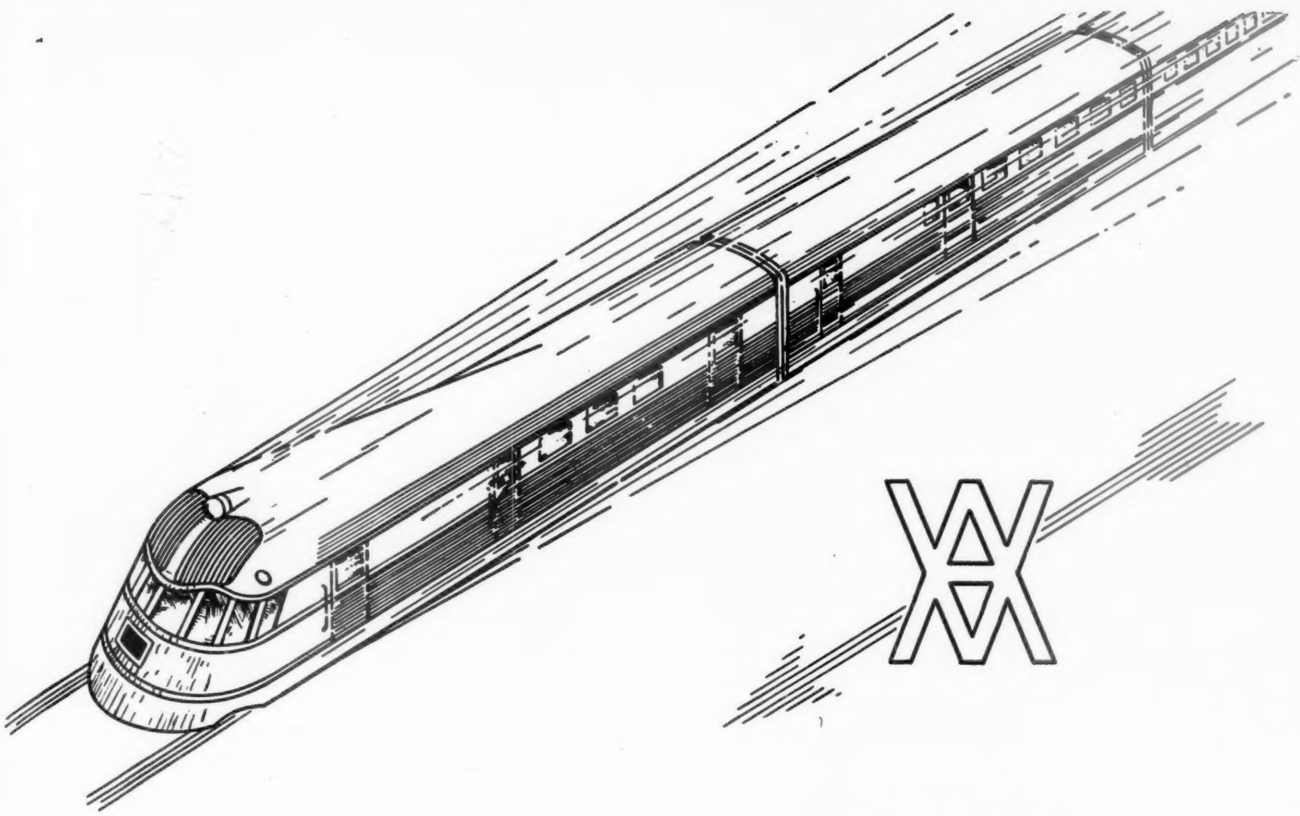


ager, with headquarters as before at Denver, Colo.

W. McN. Knapp, traffic manager of the Central of Georgia, with headquarters at Savannah, Ga., has been appointed chief traffic officer. The position of traffic manager has been abolished.

N. R. Lehmann, assistant chief of the Norfolk & Western divisions bureau, has been appointed chief of divisions bureau, with headquarters as before at Roanoke, Va., succeeding **H. N. Huse,** deceased.

Henry H. Thommason, district freight agent of the Pennsylvania, with headquarters at Seattle, Wash., has been promoted to division freight agent, with headquarters at Louisville, Ky.

J. P. Kilty, assistant manager, mail, baggage and express, for the Chicago, Rock Island & Pacific, has been appointed assistant general passenger agent with headquarters at Chicago, effective January 1.

J. Merrow, Jr., general agent of the Chicago, Rock Island & Pacific with headquarters at Cincinnati, Ohio, has been promoted to division freight agent of the Illinois division, with headquarters at Chicago, to succeed **H. E. Duval,** deceased.

J. C. Prude has been appointed live stock agent on the Chicago, Burlington & Quincy, with headquarters at Denver, Colo., to succeed **B. Topping,** who has been assigned to duties with the Colorado & Southern, an affiliate of the Burlington.

William E. Stewart, assistant general freight agent of the Central of Georgia, with headquarters at Macon, Ga., has been appointed general freight agent, in charge of solicitation and freight traffic agencies, with headquarters at Savannah, Ga. **Frank M. Tuttle** has been appointed division freight agent, with headquarters at Macon.

R. S. Boston, general agent for the Alton & Southern at Chicago, has been promoted to traffic manager with headquarters at St. Louis, Mo., to succeed **Ellsworth Woodward,** who has been appointed to the newly-created position of general traffic manager. **C. J. Schmidt** has been appointed general agent at Chicago, to succeed Mr. Boston.

A. L. Doggett, freight traffic manager of the Baltimore & Ohio, with headquarters at Pittsburgh, Pa., has been transferred in the same capacity to Chicago, succeeding **Edward Hart,** who has, at his own request, been retired. **J. C. Kimes,** general freight agent at Chicago, has been appointed assistant freight traffic manager at Chicago. **C. M. Groninger,** assistant general freight agent at Cleveland, Ohio, has been appointed general freight agent at St. Louis, Mo. **George C. Bauer,** coal freight agent at Cincinnati, has been appointed assistant general coal freight agent at Cleveland, succeeding **J. A. Scheuerman,** who has been appointed assistant to the general coal freight agent at Pittsburgh. **H. O. Bias,** traveling coal freight agent at Buffalo, N. Y., has been appointed coal freight agent, succeeding Mr. Bauer. **A. H. Farrar,** division freight agent at Akron, Ohio, has been appointed assistant general freight agent at Cleveland, succeeding C. M. Groninger. **E. A. Schofield,** commerce agent, has been appointed assistant general freight agent at Cincinnati. **D. W. Lang,** freight representative at Louisville, Ky., has been appointed district freight agent at Columbus, Ohio.

C. F. Farmer, assistant freight traffic manager of the Baltimore & Ohio, with headquarters at St. Louis, Mo., has been appointed freight traffic manager, with headquarters at Pittsburgh, Pa. **H. G. Settle,** general freight agent, has been appointed assistant freight traffic manager, with headquarters as before at Baltimore, Md. **J. C. McGohan,** assistant general freight agent at Cincinnati, Ohio, has been appointed general freight agent at Baltimore, succeeding Mr. Settle. **Paul S. Phenix,** general New England agent at Boston, Mass., has been appointed assistant freight traffic manager at New York. **Harry Atkinson,** assistant general freight agent at New York, has been appointed general New England agent at Boston, succeeding Mr. Phenix. **G. Murray Campbell,** assistant general freight agent at Washington, D. C., has been appointed assistant coal traffic manager at Baltimore. **J. W. Phipps,** division freight agent at Baltimore, has been appointed assistant general freight agent at Washington, succeeding Mr. Campbell. **F. M. Jordan,** general coal freight agent at Baltimore, has been appointed general coal freight agent at Pittsburgh. **C. M. Gosnell,** assistant general coal freight agent, has been appointed general coal freight agent at Baltimore. **R. W. Anderson,** coal freight agent at Pittsburgh, has been appointed general coal freight agent at Baltimore, succeeding Mr. Jordan. **F. M. Keane,** assistant coal freight agent, has been appointed coal freight agent, succeeding Mr. Anderson. **P. H. Dowdell,** traveling freight agent at Winston-Salem, N. C., has been appointed district freight representative at Charlotte, N. C., succeeding **H. L. Farrell,** who has been appointed division freight agent at Parkersburg, W. Va. **Walter M. Randall,** district freight agent at Columbus, Ohio, has been appointed district freight agent at Philadelphia, succeeding **J. Warner Babneu,** who has been appointed division freight agent at Akron, Ohio. **M. N. Freese** division freight agent at Youngstown, Ohio, has been transferred to Cumberland, Md., succeeding **C. S. Stout,** who has been transferred to Baltimore.

Charles L. Lyons, general freight agent of the Missouri-Kansas-Texas at Kansas City, Mo., has been promoted to the newly-created position of assistant freight traffic manager, with the same headquarters. Mr. Lyons was born on July 28, 1870, at Bedford, Ind., and after a public school and college education, he entered railway service with the M-K-T in 1888, serving as a caller, number catcher, car carder and yard clerk at Sedalia, Mo., until 1889, when he was appointed a clerk in the auditor's office at the same point. In 1889 Mr. Lyons was appointed claim clerk at Sedalia, and five years later he was advanced to chief claim clerk at St. Louis. After four years in the latter position he was made contracting freight agent at Kansas City, and in 1901 he was advanced to traveling freight agent, with the

Charles L. Lyons

same headquarters, being appointed commercial agent at Joplin, Mo., in 1908. Two years later he was transferred to St. Louis, and in 1914 he was advanced to assistant general freight agent, with the same headquarters, being transferred to Kansas City in 1920. In 1929 Mr. Lyons was appointed executive general agent, with the same headquarters, and two years later he was made general perishable traffic representative. Since 1932 he has held the position of general freight agent at Kansas City.

ENGINEERING AND SIGNALING

F. J. Hoffman, division engineer of the Illinois division of the Chicago Great Western, with headquarters at Oelwein, Iowa, has been transferred to the newly created Iowa division, with headquarters at Des Moines and has been succeeded by **H. E. Gardner,** engineer of surveys, with headquarters at Chicago, who in turn has been succeeded by **F. U. Mayhew.**

L. I. Hammond, general roadmaster of the Wyoming division of the Union Pacific at Cheyenne, Wyo., has been promoted to division engineer, with the same headquarters, to succeed **N. C. Pearson,** who has been transferred to Kansas City, Mo., where he replaces **W. C. Perkins,** who has been advanced to district engineer of the Central, Northwestern and Southwestern districts, with headquarters at Salt Lake City, Utah. **Owen H. Carpenter,** roadmaster on the Nebraska division at Cheyenne, Wyo., has been promoted to general roadmaster of the Wyoming division with the same headquarters, to succeed Mr. Hammond.

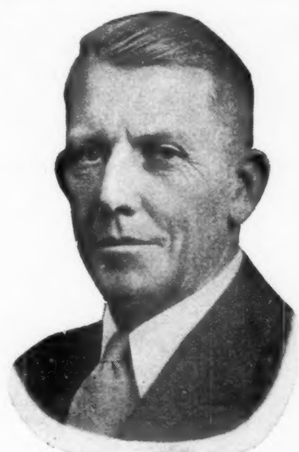
Banus H. Prater, who has been appointed chief engineer of the Union Pacific, with headquarters at Omaha, Neb., was born on November 11, 1881, at Bingham, Ill., and was educated in civil engineering at the University of Illinois, graduating in 1903. During that year and 1904 he was engaged in work as an in-

structor in the surveying and masonry laboratory and as assistant in bridge design at the University of Illinois. He first

Banus H. Prater

entered railway service as a track apprentice on the Illinois Central during the summer vacations while attending the university, during which periods he also served as a shop apprentice with the Illinois Steel Company and as a clerk with the American Bridge Company. Mr. Prater was employed as a transitman on the construction of the Panama canal in 1904 and 1906. He entered the service of the Oregon Short Line (now part of the Union Pacific) in the latter year as a draftsman and was subsequently promoted to chief draftsman, office engineer and engineer of buildings. In 1918 he left railway service to become manager of the supply division of the Chester Shipbuilding Company, Chester, Pa., but on May 12, 1919, he returned to the Oregon Short Line as engineer maintenance of way, with headquarters at Pocatello, Idaho, being advanced to assistant chief engineer with headquarters at Salt Lake City, in 1925. In 1929 Mr. Prater's title was changed to chief engineer and early in 1936, when the various units of the Union Pacific System were consolidated under the name of the Union Pacific Railroad, Mr. Prater's title was changed to district engineer, his jurisdiction extending over the Central, Northwestern and Southwestern districts. He was holding this position at the time of his recent promotion to chief engineer.

W. C. Perkins, who has been appointed district engineer of the Central, Northwestern and Southwestern districts of the Union Pacific, with headquarters at Salt Lake City, Utah, was born on December 20, 1888, at Solider, Idaho, and was educated in civil engineering at the University of Idaho. He entered railway service on September 21, 1916, in the engineering department of the Oregon Short Line (part of the Union Pacific), with headquarters at Pocatello, Idaho. In the following year he enlisted with the Twenty-third Engineers and served overseas. Following the war he returned to railroad service with the Union Pacific, as assistant roadmaster on the Montana division, where he was later promoted to roadmaster. Subsequently he was advanced to division engineer of the same division, then being transferred to the Utah division. On August 18, 1931, Mr. Perkins was appointed roadmaster of the Utah division, and on May 25, 1932, he was advanced to division engineer of the Kansas division. From January 1, 1933, to August 10, 1934, he served as roadmaster and general roadmaster on the Oregon Short Line. Late in 1934 he was reappointed division engineer of the



W. C. Perkins

Kansas division, which position he was holding at the time of his recent appointment as district engineer at Salt Lake City.

MECHANICAL

J. C. Harris, master mechanic on the Southern Pacific, with headquarters at El Paso, Tex., has retired.

J. L. Cato has been appointed master mechanic of the Southern Pacific Lines in Texas and Louisiana, with headquarters at El Paso, Tex., to succeed **J. C. Harris,** retired.

M. L. Crawford, master mechanic on the St. Louis-San Francisco, with headquarters at Sherman, Tex., has been transferred to Springfield, Mo., to succeed **J. L. Harvey,** who has resigned to enter other business.

A. C. Melanson, superintendent of the St. Malo shops of the Canadian National, has been appointed superintendent of motive power and car equipment, Quebec district, succeeding **H. W. Sharpe,** who has retired. Mr. Melanson will continue to have jurisdiction over the St. Malo shops in addition to his new duties.

SPECIAL

Dr. Irving C. Cutter, dean of the medical school of Northwestern university, Evanston, Ill., has been appointed medical director of the Chicago & North Western. **Dr. V. H. Horning** was appointed first assistant to Dr. Cutter.

Dr. John R. Nilsson, chief surgeon of the Eastern district of the Union Pacific at Omaha, Neb., has been appointed chief surgeon with jurisdiction over the hospital and medical departments of the entire system. Dr. Nilsson's appointment became effective on January 1.

Carlton J. Corliss, who has been assistant in public relations for the Illinois Central, has been appointed manager of the public section of the public relations department of the Association of American Railroads, with office at Washington, D. C.

OBITUARY

Horace Stringfellow, executive representative of the Missouri Pacific at Denver, Colo., fell to his death from an eighth story window of a hotel at St. Louis, Mo., on January 1.

William McMaster, who retired in 1934 as purchasing agent of the Chicago River & Indiana and the Indiana Harbor Belt, died on January 1 at Miami, Fla., after an illness of two weeks.

Byron Cassell, who retired as treasurer of the Chicago, Indianapolis & Louisville in 1926, died in Los Angeles, Cal., on January 4. Mr. Cassell was born in Floyd county, near New Albany, Ind., and entered railway service in 1870. He was elected treasurer in 1906.

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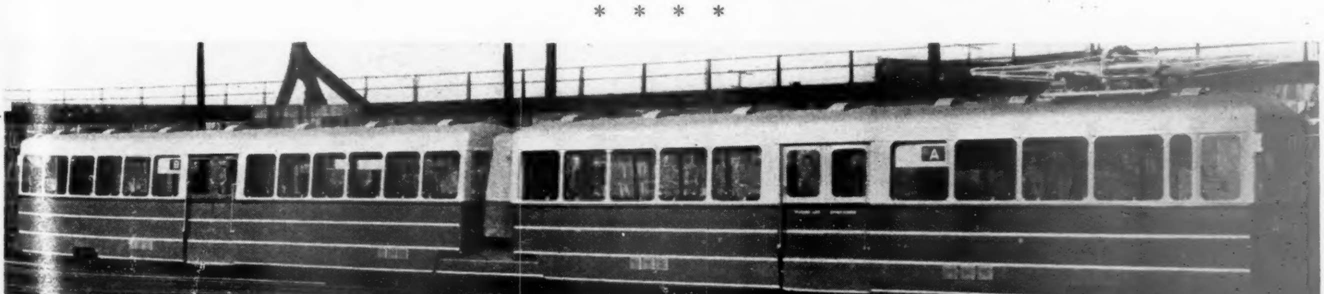

One of 88 Key System Two-Unit Articulated Cars for Operation Over the New San Francisco-Oakland Bay Bridge—Cars Arriving at the Oakland Terminal of the Bridge from Converging Routes Will Be Coupled in Trains Up to 750 Ft. in Length for Operation Across the Bridge—Built by the Bethlehem Steel Company

Weight on Drivers,	435,000 pounds
Weight of Engine,	624,500 pounds
Cylinders,	23 x 32 inches
Diameter of Drivers,	69 inches
Boiler Pressure,	250 pounds
Maximum Tractive Power,	104,500 pounds